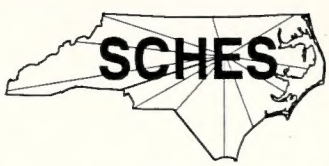
C96.7
8:C21
1991
c2

CANCER INCIDENCE IN NORTH CAROLINA

County-Specific Numbers 1991

The Central Cancer Registry

N.C. Department of Environment, Health, and Natural Resources
State Center for Health and Environmental Statistics
Raleigh, North Carolina



Digitized by the Internet Archive
in 2011 with funding from
State Library of North Carolina

http://www.archive.org/details/cancerincidencei91nort

CANCER INCIDENCE IN NORTH CAROLINA

N.C. Department of Environment, Health, and Natural Resources
State Center for Health and Environmental Statistics
Raleigh, North Carolina

N.C. DOCUMENTS
CLEARINGHOUSE

SEP 22 1994

N.C. STATE LIBRARY
RALEIGH

STATE OF NORTH CAROLINA
James B. Hunt, Jr., Governor

DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
Jonathan B. Howes, Secretary

STATE CENTER FOR HEALTH AND ENVIRONMENTAL STATISTICS
Delton Atkinson, M.S.P.H., M.P.H., Director

July 1994

700 copies of this public document were
printed at a cost of $875.00 or $1.25 per copy.

Table of Contents

Page

I. Introduction 1.1

II. Technical Notes

A. Frequencies and Definitions 2.1

B. Limitations of Data 2.4

C. Standardized Incidence Ratio 2.6

D. Interpretation 2.7

E. Comparison to National Data 2.7

F. Other Reports and Activities 2.8

G. Other Cancer Publications 2.10

H. Support for Cancer Research and Control 2.10

III. Tables

A. Observed and Expected Frequencies for Selected Cancer Sites by County of Residence 3.1

B. Age-Specific Cancer Incidence by County of Residence 3.103

C. Race/Gender-Specific Cancer Incidence by County of Residence 3.105

D. Cancer Incidence and Mortality by County of Residence 3.107

Appendix: North Carolina Central Cancer Registry Incidence Report

I. Introduction

The North Carolina Central Cancer Registry is located within the State Center for Health and Environmental Statistics. The Central Cancer Registry operates under the authority granted in North Carolina General Statute 130A-208.

The Central Cancer Registry collects demographic and medical information on newly diagnosed cancer patients in North Carolina. There are 132 hospitals in North Carolina which diagnose and treat cancer patients; 29 of these hospitals have their own tumor registries. Of the 132 hospitals, 128 (97.0 percent) reported their 1991 incidence data to the Central Cancer Registry. Also included in this report are a small number of melanoma cases which were not hospitalized and which dermatologists reported to the Central Cancer Registry. Incidence data are reported to the Central Cancer Registry by use of either magnetic media (which most hospital registries use) or the North Carolina Central Cancer Registry Incidence Report form (see Appendix).

Calendar year 1990 is the first year for which relatively complete statewide reporting was achieved. Prior to this, only 50-60 percent of the cases were reported each year. This is the second report of this type which the Central Cancer Registry will produce annually. The data are presented by county of residence of the patient.

II. Technical Notes

A. Frequencies and Definitions

Cancer incidence is exhibited in the tables of this report by frequency of cases. Each section below describes the computation(s) used in determining the frequencies for the specified tables.

Observed and Expected Frequencies for Selected Cancer Sites by County of Residence

North Carolina has several interesting patterns of cancer. Overall, the statewide rates are quite similar to those of the nation. However, for some specific cancer sites, North Carolina rates show marked differences from national rates. There is also regional variation within the state. Lung cancer is much more frequent in men than in women; but across the state, some counties show lung cancer cases among women to be excessive. Breast and colon cancer are relatively stable, but prostate cancer shows considerable variation. Counties with excess prostate cancers are mostly those in the east where there are large percentages of blacks who have higher rates.

To calculate the expected numbers of cases, the 1990-91 North Carolina age-gender-specific incidence rates were applied to each gender group. Race was not considered in this process due to the instability of rates resulting from small numbers of cases. There is a much smaller percentage of nonwhites in western and central North Carolina than in the eastern counties. Many of the eastern counties (with the larger percentages of nonwhites) are counties with relatively small populations. As described below, this report already shows many small numbers of cases (when site, gender, and county are all considered). To add race as another stratification variable would stretch the data too thin.

Observed

Males Observed = Number of males with cancer by site

Females Observed = Number of females with cancer by site

Expected

Males Expected = Sum of (North Carolina's 1990-91 age-site specific cancer incidence rate for males **x** age-specific county male population)

Females Expected = Sum of (North Carolina's 1990-91 age-site specific cancer incidence rate for females **x** age-specific county female population)

Age-Specific Cancer Incidence by County of Residence (Section III. B.)

The age-specific cancer incidence is the number of cancer cases that occurred in the age ranges 0-19, 20-44, 45-64, and 65+ during 1991 for each county. Cancer risk increases with age. North Carolina has attracted a large number of retirement-age persons over the last decade. The migration at the time of retirement is important for interpreting these data and is one reason for showing these data by age group. The largest concentrations of older-age residents are in the mountain counties, along the coast, and in the sandhills (along the mid-southern border).

The cancer pattern varies by age group. Children have a very different pattern of cancer than do adults. Leukemia, brain cancer, bone cancer, and lymphomas predominate in persons under age 20. In general, North Carolina's pediatric cancer patterns are quite consistent with those that would be expected based upon national patterns. Young adults (20-44) have an entirely different pattern of cancer than children. In this age group, lymphomas are more common, as are some digestive and reproductive tissue cancers. All of these cancers are quite rare and cancer rates in these ages are generally lower than for other age groups. In the middle ages (45-64), cancer rates begin to rise, and the common cancers (lung, breast, colon) emerge. The incursion of these cancers into earlier age groups is the subject of considerable research at this time. Much work is in progress in North Carolina on these trends.

All cancer rates are at their maximum in the 65+ age category. Prostate cancer is almost exclusively a disease of older men. These age-specific patterns offer significant direction for screening priorities. For most cancers, the prospect of a normal life expectancy is good when the diagnosis is made early. North Carolina legislation and federal money are focused on increasing the access to screening services in this state. Older and financially less-well-off persons are a priority group for these programs.

Race/Gender-Specific Cancer Incidence by County of Residence (Section III. C.)

The race/gender-specific cancer incidence is the total number of cancer cases that occurred in each race/gender group (white male, white female, black male, black female, American Indian male, American Indian female, other male, other female) during 1991 for each county.

These data are provided because race is a highly relevant factor in interpreting cancer patterns in North Carolina. Earlier, the scarcity of nonwhite cases in many counties was cited as the reason for not using site-specific incidence rates by race, as well as by gender. Yet cancer rates vary by race, race distributions in the state vary, and health care use has been found to vary by race. Therefore, numbers of cases by race and gender are presented for each county in Section III. C.

Cancer Incidence and Mortality by County of Residence (Section III. D.)

Cancer incidence is the number of cancer cases that occurred during 1991 for each county. Cancer mortality is the number of cancer deaths that occurred during 1991 for each county.

The assumption that mortality data are complete is based on the supposition that all deaths are recorded and death certificates provide complete and accurate data on all causes of death. However, for many cancers the accuracy of recording the cause of death varies. This variability arises partly from the fact that nearly half of all cancers are cured. At the time of death, the history of cancer may not be known by the physician, or is considered not to have contributed to the death. Nonetheless, mortality data have been used widely to analyze cancer risk in populations.

Instances of under-reporting of cancer incidence are known to have occurred. In some counties, and for some cancers (e.g., melanomas), under-reporting may lead to more cancer deaths being shown than indicated by incidence cases. Also, survival following a cancer diagnosis varies by site. Survival for lung cancer is very poor. Less that 15 percent of cases live five years. By contrast, over 80 percent of people with breast cancer live five years. In populations with low use of health care services (e.g., rural and black populations), more cancers are diagnosed at advanced stages when therapies are less successful; or the cases may not be diagnosed until death.

The incidence/mortality ratio is a measure used by the Central Cancer Registry to evaluate its reporting. Overall, this ratio is around 2.0. Depending on the type of cancer (its survival rate, its ability to be detected through screening exams, and the presence of successful treatment options), this value may rise to 3.0 or 3.5. In populations where low use of health care services leads to diagnoses at more advanced stages, or for cancers which have poorer survival or no effective therapies (e.g., lung cancer), this ratio may drop to about 1.0.

Differences in Reporting Cancer Incidence and Mortality Data

Many people from the northeastern part of the state are going out of state for health care. For example, patients living in Perquimans County frequently go to Norfolk, Virginia for secondary and tertiary care. Because the State of North Carolina has an exchange agreement with Virginia for death certificates, out-of-state deaths of North Carolina residents will be included in the mortality database. However, no such agreement is in effect for cancer incidence information; so these cases would not be included in the incidence data. As a result, some counties will show more deaths than incidence cases in the data presented in Section III. D. and higher counts are expected than observed by incidence cases (Section III. A.).

As noted above, some counties have been found to under-report their cancer incidence due to poor case-finding procedures. These counties, especially rural counties where small hospitals do not have the services of trained tumor registrars, may have inadequate case-finding. This results in less than complete accounting of all new cancer cases. Death data are considered to be complete. This also contributes to what appears to be an excess of deaths compared to the number of cases for some cancer sites in some of the rural counties.

Morphology (Cell Type)

Interpretations of melanoma data should be treated with caution. This is a cancer where the thoroughness of case-finding is suspect due to the likelihood that cases may be treated outside of hospitals. Data on basal and squamous cell skin cancers are not collected by the Central Cancer Registry.

Malignant melanoma may occur at many different body sites; however, this report focuses on melanoma of the skin. Also, lymphomas are not grouped consistently by all researchers. The specific morphology codes for these categories have been provided in the tables to clarify counting of these cases. The lymphoma category includes all lymphoma cases with the morphology codes shown regardless of body site.

Excesses of brain cancer have been found in various counties and further study of possible risk factors in this regard has been proposed. In these data, only malignant tumors are included. Data on benign and unspecified types are also reported to the Central Cancer Registry, but are not included in this report. Only invasive cervical cancer cases have been included. Data on in situ cases are collected, but are excluded from this report.

B. Limitations of Data

The user should not make county-to-county comparisons of the data in this report. Since only numbers of cases are shown, these will be overwhelmingly affected by the size of the county. Also, comparisons of rates (computed with the number of cases and population data) would be problematic. The age distributions and racial percentages in counties vary considerably. These factors (age, race) have too much effect on the cancer data from county to county to allow useful comparisons of risk. Consider a comparison of Buncombe County with Beaufort County. The age distributions in these counties are quite different (the Buncombe County population is generally older). Also the racial percentages are dissimilar (blacks comprise much more of the Beaufort population than they do in Buncombe County).

There are other precautions that a user of this report should heed. As mentioned previously, the expected numbers of cases were obtained by multiplying the 1990-91 North Carolina age-gender-specific rates times the corresponding populations within each county and summing the age-gender-specific results. This process is called "indirect adjustment". This means that for each gender group within a county, the observed cases and the expected cases relate to the same age distribution. Thus, the observed and expected values can be compared to arrive at an interpretation of the pattern of cancer occurrence within that county.

Urban Bias

Caution should be exercised in making interpretations based on comparisons of observed and expected frequencies. The observed frequencies for some counties are substantially higher than the expected. These elevated observed frequencies are noteworthy since many of them occur among the counties containing major urban centers (e.g., Forsyth County). Although it is possible that elevated cancer risk may result in a larger than expected number of observed cases of specific cancers, it is also possible that other factors may explain the difference. For example, some people will name a nearby large city when asked their residence instead of naming the small community where they reside. Also, after being diagnosed, some cancer patients relocate nearer to the hospital where they are being treated. Since the major cancer centers are located in cities, this can result in elevated observed frequencies in those counties and lower frequencies in counties where the patients lived prior to their diagnoses.

Small Numbers

Small numbers of cases are a problem for statistical reports of health data. Even for the most common cancers, some counties can expect to have only one or two cases in a year. For example, Tyrrell County, which has the smallest population of any county in the state, can expect to have only one case of female lung cancer each year (based on state lung cancer rates). In 1990 and 1991, no cases were reported to the Central Cancer Registry. If three cases were reported in 1992, it would appear that the county had an excessive amount of lung cancer in 1992. However, over the three-year period, the county would average exactly what was expected.

Because of the natural variation in the occurrence of disease, great care must be exercised in describing as "excessive" a larger number of observed than expected cases when very few are expected (e.g., less than 10 cases). This is especially true for rare cancers and for counties with small populations. Even at the state level, data for rare cancers are highly variable from year to year.

C. Standardized Incidence Ratio

To interpret the observed versus expected data from these tables, divide the observed number of cases by the expected number. Because these incidence data are age-adjusted, this ratio is called a Standardized Incidence Ratio (SIR). If the observed number is greater than the expected value, the SIR will be greater than 1.0. This result suggests an excess of cancer. The SIRs for a gender group could be calculated and then ranked to determine priority cancer concerns. If such a ranking were prepared, about as many SIRs greater than 1.0 would be found as are those less than 1.0. Such "balancing" of patterns is common in nature. This "balancing" argues against making any interpretation based on the one SIR. The entire gender-specific pattern for cancer in a county should be considered, since these data represent only one year and year-to-year variation can be large.

In evaluating SIRs, a paramount question is "how large" must an SIR value be to be considered meaningful. There is a statistical means of assessing this question. Generally, an SIR is meaningfully large if there is at least a 95 percent chance that the SIR is truly greater than 1.0. The determination that an SIR is truly greater than 1.0 uses a test criterion called the **95 percent "Lower Confidence Limit (LCL)"** and is computed by:

$$LCL = [\sqrt{obs} - (1.64 \times 0.5)]^2 / exp$$

[Source: Frumkin, H. and Krankowitz, W. (1987). Cancer Clusters in the Workplace. *Journal of Occupational Medicine* 29(12): 949-52.]

If the 95 percent LCL is greater than 1.0, then the calculated SIR may be meaningfully large and the SIR represents a "statistically significant" excess.

This same formula may be used to evaluate an SIR below 1.0 simply by changing the minus to a plus and calculating the 95 percent "Upper Confidence Limit (UCL)." If the UCL is below 1.0, then the SIR represents a statistically significant low risk of cancer.

The 1.64 value in this formula arises from the decision to evaluate 95 percent confidence limits. For further guidance with manipulating this formula, consult a statistician. Common values for other confidence limits using this process are 1.96 for 97.5 percent confidence limits; 2.33 for 99 percent confidence, etc. Users are welcome to call the Central Cancer Registry for assistance with interpreting these data, or for assistance with calculating these measures.

The pivotal role of the expected value is obvious in the formula above. **Another precaution:** Be very cautious when the expected value is small. An expected value that is a fraction (e.g., 0.5) is meaningless. Cancer cases are **whole** people. Consider an extreme instance where one

cancer case occurs with 0.1 cases expected. Without regard for this consideration of small numbers, this observation could be misrepresented as a 10-fold excess. As a rule of thumb, five expected cases is a good cutoff; below that the numbers are considered too small to be reliable. Ten cases is the number that is preferred for analyses by the State Center for Health and Environmental Statistics.

D. Interpretation

This descriptive report is intended to serve as a baseline report for future reference. Because of the limitations described above and because the report represents only one year of data, it should not be regarded as a definitive description of the cancer incidence in North Carolina. With additional training of hospital staff and with collaboration from neighboring states, some of the problems of under-reporting will decline. Although there are important limitations in the use of these data, the observed number of cases and a comparison of the observed and expected frequencies within a gender group in a specific county can be used for:

- planning health services at the county level;
- identifying cancers representing high incidence within a county;
- public education;
- motivating hospitals to report incidence data accurately and in a timely manner; and
- encouraging more hospitals to organize tumor registries to provide better service to their cancer patients.

E. Comparison to National Data

This report was prepared to provide data for evaluation of cancer incidence and mortality patterns in North Carolina. While comparisons to national data would be desirable, there is no reliable national database for comparison with North Carolina 1991 observed incidence cases.

The National Cancer Institute operates a series of population-based registries (the Surveillance, Epidemiology and End Results [SEER] registries). However, the most recent available SEER data is for 1973-1990. These SEER registries are intended to provide a 10 percent sample of the nation. The percentage of nonwhites in the SEER population is quite different from the percentage of nonwhites in North Carolina. Consequently, comparisons of North Carolina cancer data with SEER data are of limited value. However, a comparison of the North Carolina and SEER data is provided in the publication, **Cancer in North Carolina: Detailed Analyses, 1990**. In general, North Carolina cancer rates are quite consistent with the nation's, except for variations which are most likely due to the influence of larger rural and black populations in North Carolina.

F. Other Reports and Activities

Quality Control

The Central Cancer Registry (CCR) has developed a continuous monitoring system for all incidence reports from non-registry hospitals. These facilities send the completed incidence reports and copies of the pathology reports on a quarterly basis. The reports are coded using the *International Classification of Diseases for Oncology, Second Edition* and proceed through a 100 percent visual review to assess the accuracy and completeness of each record. Review of a sample of these records by the field staff representatives allows for consistent reporting problems to be identified and teaching site visits to be scheduled. The records are then sent for duplicate data entry to prevent keying errors.

Computerized cancer registries transmit data to the CCR by tape or disk on an annual basis. The data go through a series of automated edit and validation checks. These consistency checks compare the values of certain items against other values (e.g., female vs. prostate cancer). Records that fail the edit checks are returned to the hospital registrar for review. The CCR also requests copies of abstracts from new registrars. These abstracts are reviewed and any errors or deficiencies noted. When necessary, visits are scheduled and site-specific training materials forwarded to the registrar.

Quality control audits are conducted annually. In 1993, an audit was designed to review the accuracy of reporting from computerized, hospital-based registries. Randomly selected hospitals sent 211 copies of abstracts reported by 20 registrars. The 27 data items collected by the CCR were reviewed for accuracy, completeness, and logic. The overall accuracy rate was 99% and clearly showed the registrars commitment to high-quality data collection. Consistent problems were identified. For example, staging errors on seven of the 51 lung cases were detected. The results were reported to the Tumor Registrars Association of North Carolina (TRANC) Education Committee for future program planning.

An on-going casefinding audit to ensure complete statewide reporting began in 1994. Frequency studies by month of diagnosis are reviewed for each hospital to assess potential underreporting. The field staff contact the hospitals and arrange to review the Disease Index to abstract missing cases.

The next phase of complete case ascertainment will be to implement reporting from freestanding radiation and surgical centers, and to continue support to dermatologists who report melanoma cases not seen in a North Carolina hospital.

Cancer Cluster Reports

The Central Cancer Registry (CCR) began 1993 with eight cancer cluster reports carried over from 1992. *A cancer cluster is the occurrence of a greater than expected number of cancer cases within a small area or within a short period of time.* During the year, there were 31 newly reported cancer clusters. In addition, two miscellaneous non-cancer clusters (Multiple

Sclerosis) and two out-of-state cancer clusters (South Carolina and Virginia) were received and are not included in these totals.

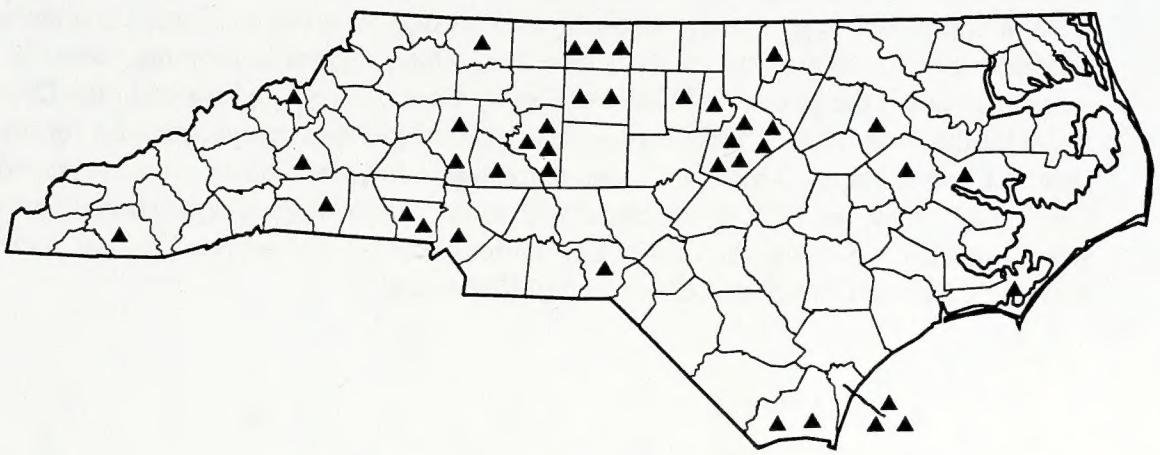
Of the 39 reports (31 new and eight carried over), 29 were closed with no evidence of clustering during the calendar year of 1993 and nine were carried over into 1994. Of the 39 reports evaluated during 1993, only one cluster was designated as a real cluster. This report which was from Iredell County involved multiple cancer diagnoses within a single household. The community will receive further surveillance.

All of these cluster reports are maintained by the Quality Control staff. A file is set up for each report and contains documentation (i.e. letters to the CCR, correspondence from CCR, completed questionnaires, computer runs, etc.). A listing is provided monthly of all reports that are carried over or received new each year. Cluster reports are designated as: *active, initial evaluation, pending, or closed.* Each county cluster report is filed with zip code, date of contact, CCR number, contact person, community, potential environmental contaminant, and site of cancer. A map of North Carolina is maintained showing color-coded symbols to define the status of each cluster report.

THE STATUS OF CANCER CLUSTER REPORTS
1989 - 1993

Year	Newly Reported	Carried Over to the Next Year	Closed	Cluster
1989-90	49	21	23	5
1991	38	10	46	3
1992	20	8	21	1
1993	31	9	29	1

REPORTED CANCER CLUSTERS - 1993



G. Other Cancer Publications

Cancer is one of only two leading causes of death in the United States that is increasing. This increase is largely the result of the aging of the population and the declining mortality from other causes of death (e.g., heart disease and stroke). It is estimated that by the year 2000, cancer will be the leading cause of death in the U.S.

Cancer is expected to strike one of three persons sometime during their lifetime. For more information about cancer, the user should contact a local office of the American Cancer Society. Many communities also have hospital-based cancer programs through which local data and/or cancer-related services may be provided. In many counties, local health departments have active cancer control programs.

The Central Cancer Registry produces other reports on cancer in North Carolina. A notable one is *Cancer in North Carolina: Detailed Analyses, 1990*. This report features cancer rates, and portrays racial and geographic variation. *North Carolina Cancer Facts and Figures* is published annually in collaboration with the North Carolina Division of the American Cancer Society. The Central Cancer Registry also has reports on specific counties, specific cancer sites, or special topics (e.g., cancers in a particular occupation). The Central Cancer Registry reports annually on its evaluations of cancer clusters. Also, other units within the State Center for Health and Environmental Statistics (SCHES) publish many reports on other diseases and on health care and environmental quality measures. For more information about reports from the Central Cancer Registry, or those of the SCHES, please call (919) 715-4555, or write:

State Center for Health and Environmental Statistics
P. O. Box 29583
Raleigh, NC 27626-0538

H. Support for Cancer Research and Control

The Central Cancer Registry (CCR) is actively involved with cancer research programs at universities in North Carolina, as well as with federal agencies and research institutes located within the state. One feature of this participation is the rapid identification of cancer patients for projects that are designed to collect information before the patient's first course of treatment is completed (e.g., genetic studies). Several organizations in North Carolina work to prevent cancer or to provide for early detection. One program to promote access to cancer screening tests is the Breast and Cervical Cancer Control Program located in the Division of Adult Health Promotion. The CCR provides statistical and data analysis support for the state's Cancer Control Program that funds cancer treatment for economically disadvantaged North Carolinians. Also, the CCR is associated with many cancer-aligned organizations such as the American Cancer Society, the Cancer Committee of the North Carolina Medical Society, and the state's Cancer Control and Coordination Committee.

III. Tables

A. Observed and Expected Frequencies for Selected Cancer Sites by County of Residence

OBSERVED FREQUENCIES OF SELECTED CANCER SITES
NORTH CAROLINA 1991

CANCER SITE	ICD-O	MALES OBSERVED	FEMALES OBSERVED
ORAL CAVITY	(140-149)	431	233
ESOPHAGUS	(150)	209	70
STOMACH	(151)	265	177
COLON AND RECTUM	(153,154.0,154.1,159.0)	1593	1651
LIVER	(155)	76	50
GALLBLADDER, BILIARY	(156)	62	74
PANCREAS	(157)	265	289
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	72	99
LARYNX	(161)	270	74
BRONCHUS AND LUNG	(162.2-162.9)	2763	1309
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	83	37
BONE	(170)	16	24
SOFT TISSUE	(164.1,171)	61	61
MELANOMA OF THE SKIN	(8720-8790)*	400	341
BREAST	(174,175)	35	4500
CERVIX UTERI	(180)	-	371
CORPUS UTERI	(179,182)	-	719
OVARY	(183.0)	-	485
PROSTATE	(185)	4170	-
TESTES	(186)	115	-
BLADDER	(188)	799	290
KIDNEY	(189.0, 189.1)	370	234
ENDOCRINE	(164.0,193,194)	80	171
LYMPHOMA	(9590-9714,9750)*	496	485
LEUKEMIA	(9800-9940,9951)*	302	231
BRAIN AND CNS	(191,192)	215	182
ALL CANCERS	(140-199)	13944	13057

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ALAMANCE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	9	7.7	2	4.7
ESOPHAGUS	(150)	4	4.0	3	1.4
STOMACH	(151)	7	5.0	2	3.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	39	29.7	36	31.7
LIVER	(155)	1	1.6	1	0.9
GALLBLADDER, BILIARY	(156)	1	1.0	1	1.5
PANCREAS	(157)	1	5.1	8	5.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	1.4	2	1.8
LARYNX	(161)	5	5.4	-	1.3
BRONCHUS AND LUNG	(162.2-162.9)	52	52.3	24	25.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	1.5	2	0.6
BONE	(170)	-	0.3	1	0.4
SOFT TISSUE	(164.1,171)	2	1.2	4	1.1
MELANOMA OF THE SKIN	(8720-8790)*	16	6.5	20	5.3
BREAST	(174,175)	1	0.5	112	81.1
CERVIX UTERI	(180)	-	-	7	6.9
CORPUS UTERI	(179,182)	-	-	17	12.9
OVARY	(183.0)	-	-	6	9.5
PROSTATE	(185)	79	73.4	-	-
TESTES	(186)	-	1.9	-	-
BLADDER	(188)	11	15.5	7	5.6
KIDNEY	(189.0, 189.1)	5	6.7	5	4.5
ENDOCRINE	(164.0,193,194)	3	1.4	3	3.0
LYMPHOMA	(9590-9714,9750)*	6	8.8	13	8.8
LEUKEMIA	(9800-9940,9951)*	7	5.2	9	4.3
BRAIN AND CNS	(191,192)	3	3.6	2	3.4
ALL CANCERS	(140-199)	288	253.5	326	240.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ALEXANDER COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.9	-	1.0
ESOPHAGUS	(150)	2	0.9	-	0.3
STOMACH	(151)	3	1.1	-	0.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	5	6.7	9	6.6
LIVER	(155)	3	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	-	1.1	3	1.1
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	-	0.4
LARYNX	(161)	-	1.3	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	12	11.9	2	5.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	2	1.6	3	1.2
BREAST	(174,175)	-	0.1	12	18.1
CERVIX UTERI	(180)	-	-	-	1.6
CORPUS UTERI	(179,182)	-	-	2	2.8
OVARY	(183.0)	-	-	3	2.1
PROSTATE	(185)	24	15.4	-	-
TESTES	(186)	1	0.5	-	-
BLADDER	(188)	1	3.4	1	1.1
KIDNEY	(189.0, 189.1)	-	1.6	-	1.0
ENDOCRINE	(164.0,193,194)	-	0.4	-	0.7
LYMPHOMA	(9590-9714,9750)*	1	2.1	3	1.9
LEUKEMIA	(9800-9940,9951)*	2	1.2	-	0.9
BRAIN AND CNS	(191,192)	1	0.9	1	0.8
ALL CANCERS	(140-199)	59	57.0	42	52.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ALLEGHANY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	0.8	-	0.5
ESOPHAGUS	(150)	-	0.4	-	0.1
STOMACH	(151)	-	0.6	-	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	3	3.4	3	3.5
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	1	0.6	-	0.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.2
LARYNX	(161)	1	0.6	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	6	5.8	1	2.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.7	1	0.5
BREAST	(174,175)	-	0.1	8	8.4
CERVIX UTERI	(180)	-	-	1	0.7
CORPUS UTERI	(179,182)	-	-	-	1.3
OVARY	(183.0)	-	-	4	1.0
PROSTATE	(185)	7	8.5	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	-	1.8	-	0.6
KIDNEY	(189.0, 189.1)	-	0.7	1	0.5
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.3
LYMPHOMA	(9590-9714,9750)*	1	0.9	-	0.9
LEUKEMIA	(9800-9940,9951)*	-	0.6	-	0.4
BRAIN AND CNS	(191,192)	-	0.4	-	0.3
ALL CANCERS	(140-199)	20	28.4	20	25.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ANSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.6	-	1.0
ESOPHAGUS	(150)	-	0.8	-	0.3
STOMACH	(151)	-	1.0	-	0.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	5	6.3	4	7.0
LIVER	(155)	1	0.3	1	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	3	1.1	1	1.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	1	0.4
LARYNX	(161)	-	1.1	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	10	10.7	3	5.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.2	1	0.2
MELANOMA OF THE SKIN	(8720-8790)*	-	1.3	1	1.1
BREAST	(174,175)	-	0.1	14	17.0
CERVIX UTERI	(180)	-	-	1	1.4
CORPUS UTERI	(179,182)	-	-	3	2.7
OVARY	(183.0)	-	-	-	2.0
PROSTATE	(185)	25	15.8	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	6	3.3	1	1.2
KIDNEY	(189.0, 189.1)	-	1.4	1	1.0
ENDOCRINE	(164.0,193,194)	-	0.3	1	0.6
LYMPHOMA	(9590-9714,9750)*	-	1.8	2	1.9
LEUKEMIA	(9800-9940,9951)*	1	1.1	-	0.9
BRAIN AND CNS	(191,192)	-	0.7	-	0.7
ALL CANCERS	(140-199)	53	53.1	36	51.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ASHE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	1.9	1	1.1
ESOPHAGUS	(150)	-	1.0	-	0.3
STOMACH	(151)	2	1.3	1	0.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	7.6	7	7.3
LIVER	(155)	1	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	1	1.3	1	1.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	3	0.4
LARYNX	(161)	1	1.3	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	14	12.9	2	5.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.5	1	1.1
BREAST	(174,175)	-	0.1	12	18.1
CERVIX UTERI	(180)	-	-	2	1.5
CORPUS UTERI	(179,182)	-	-	2	2.9
OVARY	(183.0)	-	-	4	2.1
PROSTATE	(185)	19	19.0	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	10	4.0	1	1.3
KIDNEY	(189.0, 189.1)	2	1.6	1	1.0
ENDOCRINE	(164.0,193,194)	-	0.3	-	0.6
LYMPHOMA	(9590-9714,9750)*	3	2.1	2	2.0
LEUKEMIA	(9800-9940,9951)*	1	1.3	-	0.9
BRAIN AND CNS	(191,192)	-	0.8	-	0.7
ALL CANCERS	(140-199)	65	63.7	45	53.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
AVERY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	1.1	1	0.6
ESOPHAGUS	(150)	-	0.6	-	0.2
STOMACH	(151)	-	0.7	1	0.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	4.4	9	4.1
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	2	0.8	-	0.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.2
LARYNX	(161)	-	0.8	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	5	7.6	1	3.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.9	3	0.7
BREAST	(174,175)	-	0.1	7	10.5
CERVIX UTERI	(180)	-	-	1	0.9
CORPUS UTERI	(179,182)	-	-	3	1.7
OVARY	(183.0)	-	-	-	1.2
PROSTATE	(185)	13	11.1	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	3	2.3	3	0.7
KIDNEY	(189.0, 189.1)	-	1.0	1	0.6
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.4
LYMPHOMA	(9590-9714,9750)*	-	1.3	-	1.1
LEUKEMIA	(9800-9940,9951)*	1	0.8	-	0.6
BRAIN AND CNS	(191,192)	-	0.5	-	0.4
ALL CANCERS	(140-199)	29	37.4	36	31.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
BEAUFORT COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	3.0	1	1.9
ESOPHAGUS	(150)	2	1.6	3	0.6
STOMACH	(151)	3	1.9	1	1.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	16	11.5	7	12.7
LIVER	(155)	1	0.6	1	0.4
GALLBLADDER, BILIARY	(156)	-	0.4	-	0.6
PANCREAS	(157)	2	2.0	2	2.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.5	-	0.7
LARYNX	(161)	2	2.1	-	0.5
BRONCHUS AND LUNG	(162.2-162.9)	20	20.4	10	9.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.6	-	0.2
BONE	(170)	-	0.1	-	0.2
SOFT TISSUE	(164.1,171)	-	0.5	-	0.4
MELANOMA OF THE SKIN	(8720-8790)*	1	2.5	-	2.1
BREAST	(174,175)	-	0.2	26	32.1
CERVIX UTERI	(180)	-	-	2	2.7
CORPUS UTERI	(179,182)	-	-	7	5.1
OVARY	(183.0)	-	-	3	3.7
PROSTATE	(185)	24	28.4	-	-
TESTES	(186)	-	0.7	-	-
BLADDER	(188)	5	6.0	2	2.2
KIDNEY	(189.0, 189.1)	2	2.6	1	1.8
ENDOCRINE	(164.0,193,194)	-	0.5	-	1.2
LYMPHOMA	(9590-9714,9750)*	3	3.4	4	3.5
LEUKEMIA	(9800-9940,9951)*	1	2.0	1	1.7
BRAIN AND CNS	(191,192)	2	1.4	1	1.3
ALL CANCERS	(140-199)	95	98.2	78	95.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
BERTIE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	1.3	-	0.8
ESOPHAGUS	(150)	-	0.7	-	0.2
STOMACH	(151)	-	0.9	1	0.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	7	5.3	6	5.8
LIVER	(155)	1	0.3	1	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	1	0.3
PANCREAS	(157)	1	0.9	-	1.0
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.3
LARYNX	(161)	2	1.0	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	10	9.3	3	4.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	-	1.1	-	0.9
BREAST	(174,175)	-	0.1	9	14.6
CERVIX UTERI	(180)	-	-	2	1.2
CORPUS UTERI	(179,182)	-	-	1	2.3
OVARY	(183.0)	-	-	1	1.7
PROSTATE	(185)	10	13.5	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	3	2.8	1	1.0
KIDNEY	(189.0, 189.1)	1	1.2	-	0.8
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.5
LYMPHOMA	(9590-9714,9750)*	-	1.5	1	1.6
LEUKEMIA	(9800-9940,9951)*	-	0.9	-	0.8
BRAIN AND CNS	(191,192)	-	0.6	-	0.6
ALL CANCERS	(140-199)	37	45.3	31	43.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
BLADEN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	2.0	-	1.2
ESOPHAGUS	(150)	3	1.0	-	0.4
STOMACH	(151)	1	1.3	2	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	4	7.7	4	8.2
LIVER	(155)	-	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	1	0.3	1	0.4
PANCREAS	(157)	-	1.3	1	1.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.5
LARYNX	(161)	1	1.4	1	0.3
BRONCHUS AND LUNG	(162.2-162.9)	13	13.4	7	6.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	-	1.7	2	1.4
BREAST	(174,175)	-	0.1	23	21.2
CERVIX UTERI	(180)	-	-	1	1.8
CORPUS UTERI	(179,182)	-	-	4	3.4
OVARY	(183.0)	-	-	3	2.5
PROSTATE	(185)	13	18.9	-	-
TESTES	(186)	-	0.5	-	-
BLADDER	(188)	2	4.0	4	1.4
KIDNEY	(189.0, 189.1)	1	1.7	2	1.2
ENDOCRINE	(164.0,193,194)	-	0.4	-	0.8
LYMPHOMA	(9590-9714,9750)*	2	2.3	2	2.3
LEUKEMIA	(9800-9940,9951)*	1	1.4	1	1.1
BRAIN AND CNS	(191,192)	-	0.9	1	0.9
ALL CANCERS	(140-199)	47	65.5	62	62.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
BRUNSWICK COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	4.4	3	2.1
ESOPHAGUS	(150)	-	2.4	-	0.6
STOMACH	(151)	3	2.8	1	1.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	15	16.7	9	14.0
LIVER	(155)	-	0.9	-	0.4
GALLBLADDER, BILIARY	(156)	-	0.5	-	0.7
PANCREAS	(157)	1	2.9	4	2.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.8	1	0.9
LARYNX	(161)	4	3.2	1	0.7
BRONCHUS AND LUNG	(162.2-162.9)	27	30.7	22	12.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.9	1	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	1	0.6	-	0.5
MELANOMA OF THE SKIN	(8720-8790)*	1	3.6	2	2.5
BREAST	(174,175)	-	0.3	42	39.2
CERVIX UTERI	(180)	-	-	3	3.2
CORPUS UTERI	(179,182)	-	-	2	6.3
OVARY	(183.0)	-	-	7	4.5
PROSTATE	(185)	16	41.8	-	-
TESTES	(186)	-	0.9	-	-
BLADDER	(188)	4	8.8	2	2.4
KIDNEY	(189.0, 189.1)	2	3.8	1	2.2
ENDOCRINE	(164.0,193,194)	-	0.8	2	1.4
LYMPHOMA	(9590-9714,9750)*	3	4.7	3	4.0
LEUKEMIA	(9800-9940,9951)*	1	2.9	2	1.9
BRAIN AND CNS	(191,192)	1	2.0	2	1.7
ALL CANCERS	(140-199)	92	144.3	119	113.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
BUNCOMBE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	16	13.1	10	8.0
ESOPHAGUS	(150)	6	6.8	3	2.3
STOMACH	(151)	11	8.6	8	6.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	51	51.9	66	54.7
LIVER	(155)	1	2.8	3	1.6
GALLBLADDER, BILIARY	(156)	3	1.8	2	2.7
PANCREAS	(157)	11	8.8	6	9.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	2.3	2	3.1
LARYNX	(161)	5	9.1	3	2.1
BRONCHUS AND LUNG	(162.2-162.9)	70	89.0	60	42.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	2.5	3	1.1
BONE	(170)	-	0.5	2	0.7
SOFT TISSUE	(164.1,171)	3	2.0	1	1.9
MELANOMA OF THE SKIN	(8720-8790)*	7	11.0	13	8.8
BREAST	(174,175)	-	1.0	170	136.3
CERVIX UTERI	(180)	-	-	8	11.5
CORPUS UTERI	(179,182)	-	-	18	21.6
OVARY	(183.0)	-	-	21	16.0
PROSTATE	(185)	167	129.9	-	-
TESTES	(186)	5	3.1	-	-
BLADDER	(188)	22	27.1	13	9.7
KIDNEY	(189.0, 189.1)	17	11.4	5	7.6
ENDOCRINE	(164.0,193,194)	2	2.3	6	5.0
LYMPHOMA	(9590-9714,9750)*	12	14.9	17	14.9
LEUKEMIA	(9800-9940,9951)*	7	9.0	8	7.3
BRAIN AND CNS	(191,192)	8	5.9	10	5.6
ALL CANCERS	(140-199)	466	438.7	483	407.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
BURKE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	5.3	3	3.0
ESOPHAGUS	(150)	1	2.7	-	0.9
STOMACH	(151)	3	3.3	1	2.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	14	19.8	23	20.2
LIVER	(155)	-	1.1	2	0.6
GALLBLADDER, BILIARY	(156)	1	0.6	1	1.0
PANCREAS	(157)	4	3.4	2	3.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	0.9	2	1.2
LARYNX	(161)	1	3.7	2	0.8
BRONCHUS AND LUNG	(162.2-162.9)	34	34.9	14	16.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.0	-	0.4
BONE	(170)	-	0.2	-	0.3
SOFT TISSUE	(164.1,171)	-	0.8	-	0.7
MELANOMA OF THE SKIN	(8720-8790)*	6	4.5	5	3.5
BREAST	(174,175)	-	0.4	54	53.9
CERVIX UTERI	(180)	-	-	5	4.7
CORPUS UTERI	(179,182)	-	-	6	8.4
OVARY	(183.0)	-	-	8	6.2
PROSTATE	(185)	39	47.3	-	-
TESTES	(186)	-	1.4	-	-
BLADDER	(188)	19	10.2	3	3.5
KIDNEY	(189.0, 189.1)	5	4.6	2	3.0
ENDOCRINE	(164.0,193,194)	1	1.0	1	2.1
LYMPHOMA	(9590-9714,9750)*	4	6.0	6	5.7
LEUKEMIA	(9800-9940,9951)*	7	3.6	1	2.8
BRAIN AND CNS	(191,192)	3	2.5	1	2.3
ALL CANCERS	(140-199)	164	168.4	155	157.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CABARRUS COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	12	6.7	4	3.9
ESOPHAGUS	(150)	2	3.4	1	1.2
STOMACH	(151)	9	4.2	4	2.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	29	24.8	26	26.7
LIVER	(155)	1	1.4	-	0.8
GALLBLADDER, BILIARY	(156)	2	0.8	-	1.3
PANCREAS	(157)	5	4.2	3	4.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	1.2	-	1.5
LARYNX	(161)	6	4.6	2	1.1
BRONCHUS AND LUNG	(162.2-162.9)	37	43.7	26	21.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	3	1.3	-	0.5
BONE	(170)	-	0.3	1	0.4
SOFT TISSUE	(164.1,171)	-	1.1	-	1.0
MELANOMA OF THE SKIN	(8720-8790)*	7	5.8	7	4.6
BREAST	(174,175)	1	0.5	71	69.8
CERVIX UTERI	(180)	-	-	3	6.1
CORPUS UTERI	(179,182)	-	-	14	10.9
OVARY	(183.0)	-	-	9	8.1
PROSTATE	(185)	68	59.5	-	-
TESTES	(186)	1	1.8	-	-
BLADDER	(188)	9	12.9	7	4.7
KIDNEY	(189.0, 189.1)	10	5.7	3	3.9
ENDOCRINE	(164.0,193,194)	2	1.3	2	2.7
LYMPHOMA	(9590-9714,9750)*	10	7.7	6	7.5
LEUKEMIA	(9800-9940,9951)*	3	4.5	5	3.7
BRAIN AND CNS	(191,192)	4	3.1	2	3.0
ALL CANCERS	(140-199)	231	212.1	203	205.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CALDWELL COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	4.9	-	2.6
ESOPHAGUS	(150)	1	2.5	-	0.8
STOMACH	(151)	2	3.0	2	1.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	11	17.7	14	17.5
LIVER	(155)	-	1.0	-	0.5
GALLBLADDER, BILIARY	(156)	-	0.6	-	0.8
PANCREAS	(157)	2	3.0	3	2.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.9	2	1.0
LARYNX	(161)	5	3.4	1	0.7
BRONCHUS AND LUNG	(162.2-162.9)	22	31.3	16	14.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.9	-	0.3
BONE	(170)	1	0.2	-	0.2
SOFT TISSUE	(164.1,171)	1	0.7	-	0.7
MELANOMA OF THE SKIN	(8720-8790)*	4	4.2	4	3.2
BREAST	(174,175)	1	0.3	19	47.6
CERVIX UTERI	(180)	-	-	3	4.2
CORPUS UTERI	(179,182)	-	-	6	7.3
OVARY	(183.0)	-	-	5	5.5
PROSTATE	(185)	36	41.8	-	-
TESTES	(186)	1	1.3	-	-
BLADDER	(188)	13	9.1	1	3.1
KIDNEY	(189.0, 189.1)	4	4.1	3	2.6
ENDOCRINE	(164.0,193,194)	-	0.9	2	1.9
LYMPHOMA	(9590-9714,9750)*	7	5.5	4	5.0
LEUKEMIA	(9800-9940,9951)*	2	3.2	-	2.5
BRAIN AND CNS	(191,192)	1	2.2	2	2.0
ALL CANCERS	(140-199)	126	151.0	94	138.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CAMDEN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	0.5	-	0.2
ESOPHAGUS	(150)	-	0.2	-	0.1
STOMACH	(151)	-	0.3	-	0.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	3	1.8	2	1.5
LIVER	(155)	-	0.1	-	-
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.1
PANCREAS	(157)	-	0.3	-	0.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.1
LARYNX	(161)	-	0.3	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	-	3.1	-	1.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	-
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.4	1	0.3
BREAST	(174,175)	-	-	1	4.2
CERVIX UTERI	(180)	-	-	1	0.4
CORPUS UTERI	(179,182)	-	-	-	0.7
OVARY	(183.0)	-	-	-	0.5
PROSTATE	(185)	3	4.3	-	-
TESTES	(186)	-	0.1	-	-
BLADDER	(188)	-	0.9	-	0.3
KIDNEY	(189.0, 189.1)	1	0.4	-	0.2
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.2
LYMPHOMA	(9590-9714,9750)*	1	0.5	-	0.4
LEUKEMIA	(9800-9940,9951)*	-	0.3	-	0.2
BRAIN AND CNS	(191,192)	-	0.2	-	0.2
ALL CANCERS	(140-199)	8	15.0	5	12.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CARTERET COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	4.2	2	2.1
ESOPHAGUS	(150)	2	2.2	1	0.6
STOMACH	(151)	2	2.6	1	1.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	11	15.8	4	14.3
LIVER	(155)	1	0.9	-	0.4
GALLBLADDER, BILIARY	(156)	1	0.5	-	0.7
PANCREAS	(157)	1	2.7	-	2.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.7	-	0.8
LARYNX	(161)	2	2.9	2	0.6
BRONCHUS AND LUNG	(162.2-162.9)	19	28.3	17	11.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	0.8	-	0.3
BONE	(170)	-	0.2	1	0.2
SOFT TISSUE	(164.1,171)	-	0.6	1	0.5
MELANOMA OF THE SKIN	(8720-8790)*	-	3.5	-	2.5
BREAST	(174,175)	-	0.3	41	38.4
CERVIX UTERI	(180)	-	-	3	3.3
CORPUS UTERI	(179,182)	-	-	6	6.1
OVARY	(183.0)	-	-	4	4.4
PROSTATE	(185)	44	39.2	-	-
TESTES	(186)	-	1.0	-	-
BLADDER	(188)	7	8.3	1	2.5
KIDNEY	(189.0, 189.1)	3	3.6	-	2.1
ENDOCRINE	(164.0,193,194)	1	0.7	2	1.5
LYMPHOMA	(9590-9714,9750)*	6	4.6	3	4.0
LEUKEMIA	(9800-9940,9951)*	3	2.8	1	2.0
BRAIN AND CNS	(191,192)	3	1.9	2	1.6
ALL CANCERS	(140-199)	119	135.6	98	112.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CASWELL COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.5	1	0.8
ESOPHAGUS	(150)	1	0.8	-	0.3
STOMACH	(151)	1	1.0	-	0.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	8	5.8	2	5.7
LIVER	(155)	-	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	-	1.0	-	1.0
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.3	-	0.3
LARYNX	(161)	1	1.0	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	10	10.0	5	4.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.3	-	1.0
BREAST	(174,175)	-	0.1	15	15.0
CERVIX UTERI	(180)	-	-	-	1.3
CORPUS UTERI	(179,182)	-	-	2	2.4
OVARY	(183.0)	-	-	-	1.7
PROSTATE	(185)	11	14.2	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	3	3.0	-	1.0
KIDNEY	(189.0, 189.1)	1	1.3	-	0.8
ENDOCRINE	(164.0,193,194)	-	0.3	1	0.6
LYMPHOMA	(9590-9714,9750)*	1	1.7	1	1.6
LEUKEMIA	(9800-9940,9951)*	1	1.0	1	0.8
BRAIN AND CNS	(191,192)	2	0.7	1	0.6
ALL CANCERS	(140-199)	45	49.2	36	44.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CATAWBA COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	7.9	2	4.4
ESOPHAGUS	(150)	4	4.0	1	1.3
STOMACH	(151)	5	4.8	1	3.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	31	28.5	24	29.4
LIVER	(155)	-	1.6	-	0.9
GALLBLADDER, BILIARY	(156)	1	0.9	1	1.4
PANCREAS	(157)	4	4.9	2	4.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.4	1	1.7
LARYNX	(161)	6	5.4	-	1.3
BRONCHUS AND LUNG	(162.2-162.9)	57	50.8	25	24.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	1.5	-	0.6
BONE	(170)	1	0.4	-	0.4
SOFT TISSUE	(164.1,171)	2	1.2	3	1.1
MELANOMA OF THE SKIN	(8720-8790)*	11	6.8	14	5.3
BREAST	(174,175)	-	0.5	70	80.1
CERVIX UTERI	(180)	-	-	8	7.1
CORPUS UTERI	(179,182)	-	-	14	12.4
OVARY	(183.0)	-	-	7	9.3
PROSTATE	(185)	75	67.6	-	-
TESTES	(186)	1	2.2	-	-
BLADDER	(188)	16	14.8	3	5.1
KIDNEY	(189.0, 189.1)	4	6.7	5	4.4
ENDOCRINE	(164.0,193,194)	2	1.5	3	3.2
LYMPHOMA	(9590-9714,9750)*	8	9.0	10	8.5
LEUKEMIA	(9800-9940,9951)*	6	5.3	8	4.2
BRAIN AND CNS	(191,192)	4	3.7	5	3.4
ALL CANCERS	(140-199)	261	244.9	223	232.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CHATHAM COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	2.8	2	1.6
ESOPHAGUS	(150)	6	1.5	1	0.5
STOMACH	(151)	-	1.8	2	1.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	9	10.9	8	11.0
LIVER	(155)	-	0.6	1	0.3
GALLBLADDER, BILIARY	(156)	-	0.4	-	0.5
PANCREAS	(157)	2	1.9	4	1.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.5	-	0.6
LARYNX	(161)	1	2.0	-	0.4
BRONCHUS AND LUNG	(162.2-162.9)	13	18.9	6	8.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.6	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.4	1	0.4
MELANOMA OF THE SKIN	(8720-8790)*	4	2.4	1	1.9
BREAST	(174,175)	-	0.2	32	28.6
CERVIX UTERI	(180)	-	-	1	2.5
CORPUS UTERI	(179,182)	-	-	3	4.5
OVARY	(183.0)	-	-	4	3.3
PROSTATE	(185)	29	26.8	-	-
TESTES	(186)	1	0.7	-	-
BLADDER	(188)	3	5.7	-	1.9
KIDNEY	(189.0, 189.1)	3	2.4	2	1.6
ENDOCRINE	(164.0,193,194)	-	0.5	2	1.1
LYMPHOMA	(9590-9714,9750)*	4	3.2	4	3.1
LEUKEMIA	(9800-9940,9951)*	1	1.9	2	1.5
BRAIN AND CNS	(191,192)	1	1.3	1	1.2
ALL CANCERS	(140-199)	83	92.6	88	84.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CHEROKEE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.8	1	1.0
ESOPHAGUS	(150)	1	1.0	-	0.3
STOMACH	(151)	-	1.3	1	0.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	5	7.6	5	6.8
LIVER	(155)	-	0.4	1	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.3
PANCREAS	(157)	-	1.3	1	1.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	-	0.4
LARYNX	(161)	3	1.3	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	16	12.9	7	5.4
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.3	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.5	2	1.1
BREAST	(174,175)	-	0.1	18	17.0
CERVIX UTERI	(180)	-	-	2	1.3
CORPUS UTERI	(179,182)	-	-	4	2.8
OVARY	(183.0)	-	-	4	2.0
PROSTATE	(185)	23	19.6	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	4	4.0	-	1.2
KIDNEY	(189.0, 189.1)	2	1.6	1	1.0
ENDOCRINE	(164.0,193,194)	1	0.3	-	0.6
LYMPHOMA	(9590-9714,9750)*	2	2.0	-	1.8
LEUKEMIA	(9800-9940,9951)*	-	1.2	-	0.9
BRAIN AND CNS	(191,192)	-	0.8	1	0.7
ALL CANCERS	(140-199)	66	63.8	53	50.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CHOWAN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.1	1	0.7
ESOPHAGUS	(150)	-	0.6	-	0.2
STOMACH	(151)	-	0.7	-	0.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	4.4	2	4.5
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	2	0.8	-	0.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.3
LARYNX	(161)	1	0.8	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	5	7.6	4	3.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	1	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	0.9	-	0.7
BREAST	(174,175)	-	0.1	10	11.0
CERVIX UTERI	(180)	-	-	-	0.9
CORPUS UTERI	(179,182)	-	-	3	1.8
OVARY	(183.0)	-	-	-	1.3
PROSTATE	(185)	7	11.3	-	-
TESTES	(186)	1	0.2	-	-
BLADDER	(188)	2	2.3	1	0.8
KIDNEY	(189.0, 189.1)	-	0.9	1	0.6
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.4
LYMPHOMA	(9590-9714,9750)*	-	1.2	-	1.2
LEUKEMIA	(9800-9940,9951)*	-	0.7	-	0.6
BRAIN AND CNS	(191,192)	-	0.5	-	0.5
ALL CANCERS	(140-199)	27	37.2	23	33.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CLAY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	0.7	1	0.4
ESOPHAGUS	(150)	-	0.4	-	0.1
STOMACH	(151)	-	0.5	-	0.3
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	2.9	1	2.5
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.1
PANCREAS	(157)	-	0.5	1	0.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.1
LARYNX	(161)	-	0.5	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	4	4.9	2	2.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	-
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	1	0.6	-	0.4
BREAST	(174,175)	-	0.1	8	6.2
CERVIX UTERI	(180)	-	-	-	0.5
CORPUS UTERI	(179,182)	-	-	-	1.0
OVARY	(183.0)	-	-	1	0.7
PROSTATE	(185)	4	7.5	-	-
TESTES	(186)	-	0.1	-	-
BLADDER	(188)	-	1.5	-	0.4
KIDNEY	(189.0, 189.1)	1	0.6	1	0.4
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.2
LYMPHOMA	(9590-9714,9750)*	-	0.8	2	0.7
LEUKEMIA	(9800-9940,9951)*	-	0.5	-	0.3
BRAIN AND CNS	(191,192)	-	0.3	1	0.3
ALL CANCERS	(140-199)	14	24.4	20	18.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CLEVELAND COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	4	5.8	4	3.5
ESOPHAGUS	(150)	1	3.0	-	1.0
STOMACH	(151)	1	3.6	1	2.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	17	21.6	22	23.4
LIVER	(155)	1	1.2	-	0.7
GALLBLADDER, BILIARY	(156)	-	0.7	2	1.1
PANCREAS	(157)	-	3.7	1	3.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.0	2	1.3
LARYNX	(161)	6	4.0	1	0.9
BRONCHUS AND LUNG	(162.2-162.9)	41	38.2	12	18.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	1.1	1	0.5
BONE	(170)	-	0.3	-	0.3
SOFT TISSUE	(164.1,171)	1	0.9	-	0.8
MELANOMA OF THE SKIN	(8720-8790)*	8	4.9	5	4.0
BREAST	(174,175)	-	0.4	49	60.9
CERVIX UTERI	(180)	-	-	5	5.2
CORPUS UTERI	(179,182)	-	-	12	9.6
OVARY	(183.0)	-	-	7	7.1
PROSTATE	(185)	58	52.5	-	-
TESTES	(186)	-	1.5	-	-
BLADDER	(188)	8	11.2	7	4.1
KIDNEY	(189.0, 189.1)	3	5.0	3	3.4
ENDOCRINE	(164.0,193,194)	1	1.1	1	2.3
LYMPHOMA	(9590-9714,9750)*	4	6.6	6	6.5
LEUKEMIA	(9800-9940,9951)*	4	3.9	6	3.2
BRAIN AND CNS	(191,192)	4	2.7	1	2.6
ALL CANCERS	(140-199)	174	185.0	157	179.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
COLUMBUS COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	3.3	-	2.0
ESOPHAGUS	(150)	3	1.7	1	0.6
STOMACH	(151)	3	2.1	-	1.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	12	12.5	9	13.6
LIVER	(155)	-	0.7	1	0.4
GALLBLADDER, BILIARY	(156)	-	0.4	-	0.7
PANCREAS	(157)	3	2.1	5	2.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.6	-	0.8
LARYNX	(161)	1	2.3	-	0.6
BRONCHUS AND LUNG	(162.2-162.9)	19	22.0	7	11.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.6	-	0.3
BONE	(170)	-	0.1	-	0.2
SOFT TISSUE	(164.1,171)	-	0.5	-	0.5
MELANOMA OF THE SKIN	(8720-8790)*	3	2.8	1	2.3
BREAST	(174,175)	-	0.2	23	35.8
CERVIX UTERI	(180)	-	-	1	3.0
CORPUS UTERI	(179,182)	-	-	5	5.7
OVARY	(183.0)	-	-	4	4.2
PROSTATE	(185)	25	30.2	-	-
TESTES	(186)	-	0.8	-	-
BLADDER	(188)	2	6.5	1	2.4
KIDNEY	(189.0, 189.1)	3	2.9	-	2.0
ENDOCRINE	(164.0,193,194)	1	0.6	1	1.4
LYMPHOMA	(9590-9714,9750)*	5	3.7	1	3.8
LEUKEMIA	(9800-9940,9951)*	3	2.3	-	1.9
BRAIN AND CNS	(191,192)	1	1.5	-	1.5
ALL CANCERS	(140-199)	90	106.2	69	105.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CRAVEN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	9	4.9	1	2.7
ESOPHAGUS	(150)	2	2.5	2	0.8
STOMACH	(151)	3	3.0	2	2.0
COLON AND RECTUM	(153,154.0,154.1,159.0)	27	18.2	18	18.0
LIVER	(155)	-	1.0	-	0.5
GALLBLADDER, BILIARY	(156)	1	0.6	2	0.9
PANCREAS	(157)	-	3.1	5	3.0
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.9	1	1.1
LARYNX	(161)	2	3.4	1	0.8
BRONCHUS AND LUNG	(162.2-162.9)	40	32.5	23	14.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.0	-	0.4
BONE	(170)	-	0.2	-	0.3
SOFT TISSUE	(164.1,171)	-	0.8	-	0.7
MELANOMA OF THE SKIN	(8720-8790)*	6	4.2	4	3.3
BREAST	(174,175)	-	0.3	52	48.7
CERVIX UTERI	(180)	-	-	-	4.4
CORPUS UTERI	(179,182)	-	-	11	7.6
OVARY	(183.0)	-	-	4	5.7
PROSTATE	(185)	55	44.7	-	-
TESTES	(186)	2	1.6	-	-
BLADDER	(188)	9	9.5	4	3.1
KIDNEY	(189.0, 189.1)	6	4.2	6	2.7
ENDOCRINE	(164.0,193,194)	3	1.0	-	2.0
LYMPHOMA	(9590-9714,9750)*	5	5.9	1	5.3
LEUKEMIA	(9800-9940,9951)*	4	3.4	3	2.7
BRAIN AND CNS	(191,192)	2	2.4	3	2.2
ALL CANCERS	(140-199)	181	157.9	151	143.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CUMBERLAND COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	8	12.2	4	6.4
ESOPHAGUS	(150)	2	5.8	4	1.9
STOMACH	(151)	8	6.7	3	4.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	42	38.8	51	40.1
LIVER	(155)	-	2.3	5	1.3
GALLBLADDER, BILIARY	(156)	1	1.2	-	1.9
PANCREAS	(157)	7	6.7	12	6.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	2.2	5	2.5
LARYNX	(161)	7	7.9	1	2.0
BRONCHUS AND LUNG	(162.2-162.9)	76	70.7	31	34.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	7	2.4	1	0.9
BONE	(170)	1	0.8	-	0.8
SOFT TISSUE	(164.1,171)	3	2.3	2	1.9
MELANOMA OF THE SKIN	(8720-8790)*	6	11.2	7	9.1
BREAST	(174,175)	2	0.7	126	124.2
CERVIX UTERI	(180)	-	-	13	13.0
CORPUS UTERI	(179,182)	-	-	13	18.3
OVARY	(183.0)	-	-	5	14.5
PROSTATE	(185)	80	84.7	-	-
TESTES	(186)	5	5.9	-	-
BLADDER	(188)	15	19.8	7	6.9
KIDNEY	(189.0, 189.1)	13	9.9	1	6.6
ENDOCRINE	(164.0,193,194)	2	2.9	8	6.3
LYMPHOMA	(9590-9714,9750)*	10	16.0	20	13.4
LEUKEMIA	(9800-9940,9951)*	15	8.8	7	7.0
BRAIN AND CNS	(191,192)	5	6.8	6	6.1
ALL CANCERS	(140-199)	329	346.2	350	353.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
CURRITUCK COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.0	-	0.5
ESOPHAGUS	(150)	-	0.5	-	0.1
STOMACH	(151)	1	0.6	-	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	-	3.7	1	3.3
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	-	0.6	-	0.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.2
LARYNX	(161)	1	0.7	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	-	6.7	1	2.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.2	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	1	0.9	-	0.6
BREAST	(174,175)	-	0.1	5	8.9
CERVIX UTERI	(180)	-	-	1	0.8
CORPUS UTERI	(179,182)	-	-	2	1.4
OVARY	(183.0)	-	-	-	1.0
PROSTATE	(185)	8	9.1	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	-	1.9	-	0.6
KIDNEY	(189.0, 189.1)	-	0.9	-	0.5
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.4
LYMPHOMA	(9590-9714,9750)*	1	1.1	-	0.9
LEUKEMIA	(9800-9940,9951)*	-	0.7	-	0.5
BRAIN AND CNS	(191,192)	1	0.5	-	0.4
ALL CANCERS	(140-199)	13	32.1	10	26.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
DARE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.7	2	0.8
ESOPHAGUS	(150)	-	0.9	-	0.2
STOMACH	(151)	-	1.0	-	0.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	4	6.2	1	5.3
LIVER	(155)	1	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.2
PANCREAS	(157)	1	1.1	1	0.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	-	0.3
LARYNX	(161)	-	1.2	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	2	11.0	2	4.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	-	1.4	-	1.0
BREAST	(174,175)	-	0.1	11	15.0
CERVIX UTERI	(180)	-	-	2	1.4
CORPUS UTERI	(179,182)	-	-	1	2.3
OVARY	(183.0)	-	-	-	1.7
PROSTATE	(185)	3	14.9	-	-
TESTES	(186)	-	0.5	-	-
BLADDER	(188)	2	3.2	-	0.9
KIDNEY	(189.0, 189.1)	-	1.4	-	0.8
ENDOCRINE	(164.0,193,194)	-	0.3	-	0.6
LYMPHOMA	(9590-9714,9750)*	2	1.9	-	1.5
LEUKEMIA	(9800-9940,9951)*	-	1.1	-	0.8
BRAIN AND CNS	(191,192)	-	0.8	-	0.7
ALL CANCERS	(140-199)	17	53.1	21	43.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
DAVIDSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	8.8	1	4.7
ESOPHAGUS	(150)	3	4.5	3	1.4
STOMACH	(151)	3	5.4	3	3.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	25	32.1	24	31.5
LIVER	(155)	2	1.8	-	0.9
GALLBLADDER, BILIARY	(156)	1	1.0	2	1.5
PANCREAS	(157)	6	5.5	7	5.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	1.6	3	1.9
LARYNX	(161)	3	6.1	-	1.4
BRONCHUS AND LUNG	(162.2-162.9)	59	56.8	12	25.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.7	1	0.6
BONE	(170)	-	0.4	1	0.5
SOFT TISSUE	(164.1,171)	2	1.4	-	1.2
MELANOMA OF THE SKIN	(8720-8790)*	5	7.5	6	5.7
BREAST	(174,175)	-	0.6	74	86.3
CERVIX UTERI	(180)	-	-	8	7.7
CORPUS UTERI	(179,182)	-	-	20	13.3
OVARY	(183.0)	-	-	15	10.0
PROSTATE	(185)	48	76.2	-	-
TESTES	(186)	3	2.4	-	-
BLADDER	(188)	17	16.6	4	5.5
KIDNEY	(189.0, 189.1)	2	7.5	7	4.7
ENDOCRINE	(164.0,193,194)	3	1.7	5	3.5
LYMPHOMA	(9590-9714,9750)*	9	10.0	5	9.1
LEUKEMIA	(9800-9940,9951)*	1	5.9	6	4.5
BRAIN AND CNS	(191,192)	5	4.1	5	3.7
ALL CANCERS	(140-199)	217	274.7	227	250.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
DAVIE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	2.1	2	1.1
ESOPHAGUS	(150)	1	1.1	-	0.3
STOMACH	(151)	2	1.3	-	0.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	13	7.9	5	7.6
LIVER	(155)	-	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	-	1.3	1	1.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	1	0.4
LARYNX	(161)	2	1.5	1	0.3
BRONCHUS AND LUNG	(162.2-162.9)	7	13.7	6	6.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	2	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	3	1.8	7	1.3
BREAST	(174,175)	-	0.1	12	20.2
CERVIX UTERI	(180)	-	-	2	1.7
CORPUS UTERI	(179,182)	-	-	4	3.1
OVARY	(183.0)	-	-	5	2.3
PROSTATE	(185)	28	19.0	-	-
TESTES	(186)	1	0.5	-	-
BLADDER	(188)	10	4.1	-	1.3
KIDNEY	(189.0, 189.1)	4	1.8	3	1.1
ENDOCRINE	(164.0,193,194)	-	0.4	-	0.8
LYMPHOMA	(9590-9714,9750)*	1	2.3	4	2.1
LEUKEMIA	(9800-9940,9951)*	6	1.4	1	1.0
BRAIN AND CNS	(191,192)	1	1.0	-	0.8
ALL CANCERS	(140-199)	88	66.9	57	58.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
DUPLIN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	4	2.7	5	1.7
ESOPHAGUS	(150)	1	1.4	-	0.5
STOMACH	(151)	-	1.8	5	1.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	9	10.5	21	11.3
LIVER	(155)	1	0.6	1	0.3
GALLBLADDER, BILIARY	(156)	1	0.3	1	0.5
PANCREAS	(157)	1	1.8	1	1.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.5	-	0.6
LARYNX	(161)	1	1.9	1	0.5
BRONCHUS AND LUNG	(162.2-162.9)	23	18.4	11	9.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.5	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.4	-	0.4
MELANOMA OF THE SKIN	(8720-8790)*	1	2.3	-	1.9
BREAST	(174,175)	1	0.2	25	28.9
CERVIX UTERI	(180)	-	-	3	2.4
CORPUS UTERI	(179,182)	-	-	4	4.6
OVARY	(183.0)	-	-	3	3.4
PROSTATE	(185)	19	25.7	-	-
TESTES	(186)	-	0.7	-	-
BLADDER	(188)	4	5.5	1	2.0
KIDNEY	(189.0, 189.1)	1	2.4	-	1.6
ENDOCRINE	(164.0,193,194)	-	0.5	-	1.1
LYMPHOMA	(9590-9714,9750)*	6	3.1	9	3.1
LEUKEMIA	(9800-9940,9951)*	2	1.9	4	1.6
BRAIN AND CNS	(191,192)	2	1.3	1	1.2
ALL CANCERS	(140-199)	83	89.4	98	85.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
DURHAM COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	8	9.8	4	6.2
ESOPHAGUS	(150)	5	4.9	1	1.8
STOMACH	(151)	11	6.0	6	4.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	22	35.6	42	41.5
LIVER	(155)	2	2.0	2	1.2
GALLBLADDER, BILIARY	(156)	2	1.2	-	2.0
PANCREAS	(157)	6	6.0	13	6.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.8	3	2.4
LARYNX	(161)	6	6.6	1	1.7
BRONCHUS AND LUNG	(162.2-162.9)	77	61.5	45	32.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	1.9	1	0.8
BONE	(170)	-	0.5	1	0.6
SOFT TISSUE	(164.1,171)	-	1.7	4	1.6
MELANOMA OF THE SKIN	(8720-8790)*	8	8.8	4	7.9
BREAST	(174,175)	-	0.7	149	110.9
CERVIX UTERI	(180)	-	-	6	11.0
CORPUS UTERI	(179,182)	-	-	15	16.8
OVARY	(183.0)	-	-	11	13.2
PROSTATE	(185)	109	84.3	-	-
TESTES	(186)	4	3.6	-	-
BLADDER	(188)	14	18.4	7	7.3
KIDNEY	(189.0, 189.1)	9	8.3	4	6.0
ENDOCRINE	(164.0,193,194)	2	2.1	7	5.1
LYMPHOMA	(9590-9714,9750)*	22	12.2	21	12.4
LEUKEMIA	(9800-9940,9951)*	11	6.9	6	6.2
BRAIN AND CNS	(191,192)	7	5.0	6	4.9
ALL CANCERS	(140-199)	348	306.9	374	327.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
EDGECOMBE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	7	3.3	3	2.2
ESOPHAGUS	(150)	4	1.7	-	0.6
STOMACH	(151)	2	2.1	3	1.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	9	12.2	11	14.6
LIVER	(155)	1	0.7	2	0.4
GALLBLADDER, BILIARY	(156)	2	0.4	3	0.7
PANCREAS	(157)	1	2.1	6	2.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.6	1	0.8
LARYNX	(161)	4	2.3	1	0.6
BRONCHUS AND LUNG	(162.2-162.9)	36	21.7	9	11.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.6	1	0.3
BONE	(170)	-	0.2	2	0.2
SOFT TISSUE	(164.1,171)	1	0.5	1	0.5
MELANOMA OF THE SKIN	(8720-8790)*	1	2.8	-	2.6
BREAST	(174,175)	1	0.2	29	38.6
CERVIX UTERI	(180)	-	-	9	3.5
CORPUS UTERI	(179,182)	-	-	10	6.0
OVARY	(183.0)	-	-	5	4.5
PROSTATE	(185)	25	29.6	-	-
TESTES	(186)	1	0.9	-	-
BLADDER	(188)	6	6.3	2	2.6
KIDNEY	(189.0, 189.1)	4	2.8	3	2.1
ENDOCRINE	(164.0,193,194)	-	0.6	2	1.6
LYMPHOMA	(9590-9714,9750)*	2	3.8	2	4.2
LEUKEMIA	(9800-9940,9951)*	3	2.3	1	2.1
BRAIN AND CNS	(191,192)	-	1.6	-	1.7
ALL CANCERS	(140-199)	115	105.0	112	113.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
FORSYTH COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	19	16.7	15	10.3
ESOPHAGUS	(150)	6	8.5	-	3.0
STOMACH	(151)	10	10.3	9	7.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	60	61.2	76	69.1
LIVER	(155)	4	3.4	1	2.0
GALLBLADDER, BILIARY	(156)	3	2.0	5	3.3
PANCREAS	(157)	8	10.5	16	11.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	3.0	4	4.0
LARYNX	(161)	9	11.5	3	2.8
BRONCHUS AND LUNG	(162.2-162.9)	132	107.4	89	54.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	3.2	1	1.4
BONE	(170)	1	0.8	1	1.0
SOFT TISSUE	(164.1,171)	3	2.7	4	2.6
MELANOMA OF THE SKIN	(8720-8790)*	33	14.4	23	12.3
BREAST	(174,175)	3	1.1	241	182.0
CERVIX UTERI	(180)	-	-	12	16.6
CORPUS UTERI	(179,182)	-	-	41	28.1
OVARY	(183.0)	-	-	21	21.4
PROSTATE	(185)	205	145.4	-	-
TESTES	(186)	10	4.9	-	-
BLADDER	(188)	48	31.6	18	12.2
KIDNEY	(189.0, 189.1)	16	14.2	10	10.0
ENDOCRINE	(164.0,193,194)	5	3.2	5	7.4
LYMPHOMA	(9590-9714,9750)*	29	19.3	25	19.8
LEUKEMIA	(9800-9940,9951)*	9	11.3	10	9.8
BRAIN AND CNS	(191,192)	15	7.9	10	7.8
ALL CANCERS	(140-199)	672	523.4	682	535.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
FRANKLIN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	2.4	3	1.5
ESOPHAGUS	(150)	2	1.2	1	0.4
STOMACH	(151)	3	1.5	-	1.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	8.9	9	10.1
LIVER	(155)	-	0.5	-	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.5
PANCREAS	(157)	2	1.5	5	1.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.6
LARYNX	(161)	5	1.6	2	0.4
BRONCHUS AND LUNG	(162.2-162.9)	11	15.6	8	7.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.5	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.4	-	0.4
MELANOMA OF THE SKIN	(8720-8790)*	2	2.1	2	1.7
BREAST	(174,175)	-	0.2	28	25.7
CERVIX UTERI	(180)	-	-	-	2.3
CORPUS UTERI	(179,182)	-	-	5	4.0
OVARY	(183.0)	-	-	2	3.0
PROSTATE	(185)	21	21.6	-	-
TESTES	(186)	-	0.7	-	-
BLADDER	(188)	2	4.6	-	1.8
KIDNEY	(189.0, 189.1)	1	2.0	-	1.4
ENDOCRINE	(164.0,193,194)	-	0.5	1	1.0
LYMPHOMA	(9590-9714,9750)*	1	2.8	4	2.8
LEUKEMIA	(9800-9940,9951)*	2	1.6	3	1.4
BRAIN AND CNS	(191,192)	-	1.1	2	1.1
ALL CANCERS	(140-199)	64	76.3	77	76.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
GASTON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	19	11.1	4	6.6
ESOPHAGUS	(150)	9	5.6	4	1.9
STOMACH	(151)	5	6.8	6	4.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	45	40.4	48	44.2
LIVER	(155)	5	2.2	4	1.3
GALLBLADDER, BILIARY	(156)	-	1.3	1	2.1
PANCREAS	(157)	10	6.9	9	7.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	2.0	1	2.6
LARYNX	(161)	15	7.6	3	1.8
BRONCHUS AND LUNG	(162.2-162.9)	119	71.5	34	35.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	3	2.1	1	0.9
BONE	(170)	-	0.5	1	0.6
SOFT TISSUE	(164.1,171)	1	1.8	-	1.7
MELANOMA OF THE SKIN	(8720-8790)*	13	9.6	7	7.8
BREAST	(174,175)	1	0.7	133	117.8
CERVIX UTERI	(180)	-	-	21	10.5
CORPUS UTERI	(179,182)	-	-	26	18.3
OVARY	(183.0)	-	-	13	13.7
PROSTATE	(185)	107	95.8	-	-
TESTES	(186)	4	3.2	-	-
BLADDER	(188)	22	20.9	6	7.7
KIDNEY	(189.0, 189.1)	16	9.5	9	6.5
ENDOCRINE	(164.0,193,194)	-	2.1	5	4.7
LYMPHOMA	(9590-9714,9750)*	12	12.8	15	12.6
LEUKEMIA	(9800-9940,9951)*	13	7.5	9	6.3
BRAIN AND CNS	(191,192)	3	5.3	6	5.1
ALL CANCERS	(140-199)	455	346.3	403	345.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
GATES COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	0.7	-	0.4
ESOPHAGUS	(150)	1	0.4	-	0.1
STOMACH	(151)	-	0.4	-	0.3
COLON AND RECTUM	(153,154.0,154.1,159.0)	2	2.7	1	2.5
LIVER	(155)	-	0.1	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.1
PANCREAS	(157)	1	0.5	-	0.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.1
LARYNX	(161)	1	0.5	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	-	4.7	-	2.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	-
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.6	-	0.4
BREAST	(174,175)	-	-	1	6.5
CERVIX UTERI	(180)	-	-	-	0.6
CORPUS UTERI	(179,182)	-	-	-	1.0
OVARY	(183.0)	-	-	-	0.8
PROSTATE	(185)	5	6.7	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	3	1.4	-	0.4
KIDNEY	(189.0, 189.1)	-	0.6	-	0.4
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.2
LYMPHOMA	(9590-9714,9750)*	-	0.8	-	0.7
LEUKEMIA	(9800-9940,9951)*	-	0.5	-	0.4
BRAIN AND CNS	(191,192)	-	0.3	-	0.3
ALL CANCERS	(140-199)	14	22.8	2	19.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
GRAHAM COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	0.6	1	0.3
ESOPHAGUS	(150)	-	0.3	-	0.1
STOMACH	(151)	-	0.4	-	0.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	2	2.4	2	2.1
LIVER	(155)	-	0.1	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.1
PANCREAS	(157)	-	0.4	1	0.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.1
LARYNX	(161)	1	0.4	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	4	4.1	-	1.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	-
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.5	-	0.3
BREAST	(174,175)	-	-	7	5.4
CERVIX UTERI	(180)	-	-	-	0.4
CORPUS UTERI	(179,182)	-	-	2	0.9
OVARY	(183.0)	-	-	-	0.6
PROSTATE	(185)	8	6.1	-	-
TESTES	(186)	-	0.1	-	-
BLADDER	(188)	3	1.3	1	0.4
KIDNEY	(189.0, 189.1)	2	0.5	-	0.3
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.2
LYMPHOMA	(9590-9714,9750)*	-	0.7	1	0.6
LEUKEMIA	(9800-9940,9951)*	-	0.4	-	0.3
BRAIN AND CNS	(191,192)	-	0.3	1	0.2
ALL CANCERS	(140-199)	23	20.2	17	15.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
GRANVILLE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	2.6	-	1.4
ESOPHAGUS	(150)	1	1.3	2	0.4
STOMACH	(151)	3	1.6	2	1.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	8	9.6	6	9.7
LIVER	(155)	1	0.5	1	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.5
PANCREAS	(157)	5	1.6	1	1.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	0.5	-	0.6
LARYNX	(161)	4	1.8	-	0.4
BRONCHUS AND LUNG	(162.2-162.9)	13	16.7	2	7.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	0.5	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.4	-	0.4
MELANOMA OF THE SKIN	(8720-8790)*	-	2.3	2	1.7
BREAST	(174,175)	-	0.2	23	25.7
CERVIX UTERI	(180)	-	-	3	2.3
CORPUS UTERI	(179,182)	-	-	6	4.0
OVARY	(183.0)	-	-	-	3.0
PROSTATE	(185)	17	22.8	-	-
TESTES	(186)	-	0.8	-	-
BLADDER	(188)	4	5.0	-	1.7
KIDNEY	(189.0, 189.1)	2	2.2	1	1.4
ENDOCRINE	(164.0,193,194)	-	0.5	-	1.0
LYMPHOMA	(9590-9714,9750)*	2	3.0	1	2.8
LEUKEMIA	(9800-9940,9951)*	4	1.8	2	1.4
BRAIN AND CNS	(191,192)	-	1.2	-	1.1
ALL CANCERS	(140-199)	76	81.8	54	75.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
GREENE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.0	-	0.6
ESOPHAGUS	(150)	1	0.5	-	0.2
STOMACH	(151)	-	0.6	-	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	3	3.6	8	4.0
LIVER	(155)	-	0.2	1	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	1	0.6	-	0.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	1	0.2
LARYNX	(161)	1	0.7	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	11	6.4	2	3.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.9	1	0.7
BREAST	(174,175)	-	0.1	5	10.5
CERVIX UTERI	(180)	-	-	1	0.9
CORPUS UTERI	(179,182)	-	-	-	1.7
OVARY	(183.0)	-	-	2	1.2
PROSTATE	(185)	3	8.5	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	1	1.9	-	0.7
KIDNEY	(189.0, 189.1)	-	0.8	-	0.6
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.4
LYMPHOMA	(9590-9714,9750)*	3	1.2	3	1.1
LEUKEMIA	(9800-9940,9951)*	-	0.7	-	0.6
BRAIN AND CNS	(191,192)	-	0.5	-	0.5
ALL CANCERS	(140-199)	26	31.1	27	31.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
GUILFORD COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	30	21.8	15	13.0
ESOPHAGUS	(150)	5	11.0	9	3.8
STOMACH	(151)	15	13.4	11	9.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	92	79.5	105	86.8
LIVER	(155)	4	4.4	4	2.6
GALLBLADDER, BILIARY	(156)	8	2.6	5	4.2
PANCREAS	(157)	17	13.6	12	14.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	3.9	4	5.0
LARYNX	(161)	18	14.9	4	3.6
BRONCHUS AND LUNG	(162.2-162.9)	170	140.0	94	68.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	4.2	3	1.7
BONE	(170)	1	1.0	2	1.3
SOFT TISSUE	(164.1,171)	7	3.5	2	3.3
MELANOMA OF THE SKIN	(8720-8790)*	20	18.8	21	15.7
BREAST	(174,175)	1	1.5	263	231.3
CERVIX UTERI	(180)	-	-	19	21.1
CORPUS UTERI	(179,182)	-	-	47	35.6
OVARY	(183.0)	-	-	31	27.1
PROSTATE	(185)	246	189.5	-	-
TESTES	(186)	5	6.4	-	-
BLADDER	(188)	51	41.2	21	15.3
KIDNEY	(189.0, 189.1)	14	18.5	17	12.6
ENDOCRINE	(164.0,193,194)	9	4.2	8	9.5
LYMPHOMA	(9590-9714,9750)*	42	25.2	25	25.2
LEUKEMIA	(9800-9940,9951)*	19	14.7	3	12.4
BRAIN AND CNS	(191,192)	7	10.3	7	9.9
ALL CANCERS	(140-199)	814	681.7	774	678.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HALIFAX COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	3.7	2	2.3
ESOPHAGUS	(150)	2	1.9	1	0.7
STOMACH	(151)	5	2.4	4	1.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	19	14.4	13	15.8
LIVER	(155)	-	0.8	-	0.5
GALLBLADDER, BILIARY	(156)	-	0.5	3	0.8
PANCREAS	(157)	2	2.5	1	2.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	4	0.7	-	0.9
LARYNX	(161)	5	2.6	2	0.6
BRONCHUS AND LUNG	(162.2-162.9)	23	25.1	10	12.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.7	-	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	-	0.6	-	0.6
MELANOMA OF THE SKIN	(8720-8790)*	-	3.1	1	2.6
BREAST	(174,175)	-	0.3	42	40.0
CERVIX UTERI	(180)	-	-	6	3.4
CORPUS UTERI	(179,182)	-	-	6	6.4
OVARY	(183.0)	-	-	1	4.7
PROSTATE	(185)	37	35.7	-	-
TESTES	(186)	-	0.9	-	-
BLADDER	(188)	4	7.5	1	2.8
KIDNEY	(189.0, 189.1)	2	3.2	1	2.3
ENDOCRINE	(164.0,193,194)	1	0.7	1	1.5
LYMPHOMA	(9590-9714,9750)*	1	4.3	3	4.4
LEUKEMIA	(9800-9940,9951)*	2	2.6	3	2.2
BRAIN AND CNS	(191,192)	2	1.7	2	1.7
ALL CANCERS	(140-199)	116	122.7	108	119.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HARNETT COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	12	4.1	1	2.4
ESOPHAGUS	(150)	1	2.1	-	0.7
STOMACH	(151)	3	2.5	2	1.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	13	15.1	21	16.2
LIVER	(155)	1	0.8	-	0.5
GALLBLADDER, BILIARY	(156)	-	0.5	2	0.8
PANCREAS	(157)	4	2.6	3	2.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.7	1	0.9
LARYNX	(161)	3	2.8	2	0.7
BRONCHUS AND LUNG	(162.2-162.9)	39	26.6	10	13.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.8	1	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	1	0.7	2	0.6
MELANOMA OF THE SKIN	(8720-8790)*	3	3.5	1	2.9
BREAST	(174,175)	1	0.3	47	42.7
CERVIX UTERI	(180)	-	-	7	3.8
CORPUS UTERI	(179,182)	-	-	5	6.7
OVARY	(183.0)	-	-	5	5.0
PROSTATE	(185)	39	36.2	-	-
TESTES	(186)	-	1.3	-	-
BLADDER	(188)	7	7.8	6	2.8
KIDNEY	(189.0, 189.1)	2	3.5	5	2.4
ENDOCRINE	(164.0,193,194)	1	0.8	-	1.7
LYMPHOMA	(9590-9714,9750)*	2	4.9	6	4.7
LEUKEMIA	(9800-9940,9951)*	4	2.8	3	2.4
BRAIN AND CNS	(191,192)	3	2.0	5	1.9
ALL CANCERS	(140-199)	151	129.7	142	126.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HAYWOOD COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	4.1	3	2.4
ESOPHAGUS	(150)	2	2.2	-	0.7
STOMACH	(151)	2	2.7	-	1.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	11	16.5	12	16.5
LIVER	(155)	1	0.9	-	0.5
GALLBLADDER, BILIARY	(156)	-	0.6	-	0.8
PANCREAS	(157)	-	2.8	6	2.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.7	2	0.9
LARYNX	(161)	-	2.9	2	0.6
BRONCHUS AND LUNG	(162.2-162.9)	22	28.5	19	12.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.8	-	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	-	0.6	-	0.5
MELANOMA OF THE SKIN	(8720-8790)*	5	3.3	2	2.6
BREAST	(174,175)	2	0.3	36	40.9
CERVIX UTERI	(180)	-	-	4	3.3
CORPUS UTERI	(179,182)	-	-	6	6.6
OVARY	(183.0)	-	-	-	4.8
PROSTATE	(185)	34	41.5	-	-
TESTES	(186)	-	0.8	-	-
BLADDER	(188)	15	8.6	2	2.9
KIDNEY	(189.0, 189.1)	5	3.6	1	2.3
ENDOCRINE	(164.0,193,194)	-	0.7	1	1.4
LYMPHOMA	(9590-9714,9750)*	4	4.5	3	4.4
LEUKEMIA	(9800-9940,9951)*	1	2.7	1	2.1
BRAIN AND CNS	(191,192)	-	1.8	2	1.6
ALL CANCERS	(140-199)	119	138.8	107	121.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HENDERSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	6.5	2	3.8
ESOPHAGUS	(150)	2	3.6	-	1.1
STOMACH	(151)	1	4.6	3	3.0
COLON AND RECTUM	(153,154.0,154.1,159.0)	26	28.3	35	26.9
LIVER	(155)	3	1.5	2	0.8
GALLBLADDER, BILIARY	(156)	2	1.0	1	1.3
PANCREAS	(157)	3	4.8	2	4.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	1.2	3	1.5
LARYNX	(161)	1	4.7	1	1.0
BRONCHUS AND LUNG	(162.2-162.9)	39	48.1	22	20.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	4	1.3	-	0.5
BONE	(170)	-	0.2	-	0.3
SOFT TISSUE	(164.1,171)	1	1.0	1	0.9
MELANOMA OF THE SKIN	(8720-8790)*	9	5.3	6	3.9
BREAST	(174,175)	-	0.5	81	63.5
CERVIX UTERI	(180)	-	-	4	4.9
CORPUS UTERI	(179,182)	-	-	10	10.4
OVARY	(183.0)	-	-	6	7.5
PROSTATE	(185)	101	74.7	-	-
TESTES	(186)	3	1.1	-	-
BLADDER	(188)	23	14.9	16	4.8
KIDNEY	(189.0, 189.1)	6	5.9	4	3.7
ENDOCRINE	(164.0,193,194)	3	1.1	2	2.1
LYMPHOMA	(9590-9714,9750)*	8	7.4	5	7.0
LEUKEMIA	(9800-9940,9951)*	8	4.6	2	3.4
BRAIN AND CNS	(191,192)	3	2.9	2	2.5
ALL CANCERS	(140-199)	268	237.8	227	192.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HERTFORD COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	1.5	1	1.0
ESOPHAGUS	(150)	-	0.8	1	0.3
STOMACH	(151)	-	1.0	-	0.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	9	5.8	10	6.6
LIVER	(155)	-	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	-	1.0	2	1.1
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	-	0.4
LARYNX	(161)	-	1.0	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	4	10.1	4	5.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	1	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	-	1.2	-	1.1
BREAST	(174,175)	-	0.1	10	16.4
CERVIX UTERI	(180)	-	-	2	1.4
CORPUS UTERI	(179,182)	-	-	5	2.6
OVARY	(183.0)	-	-	1	1.9
PROSTATE	(185)	12	14.3	-	-
TESTES	(186)	2	0.3	-	-
BLADDER	(188)	1	3.0	3	1.2
KIDNEY	(189.0, 189.1)	-	1.3	-	0.9
ENDOCRINE	(164.0,193,194)	1	0.3	-	0.6
LYMPHOMA	(9590-9714,9750)*	2	1.7	1	1.8
LEUKEMIA	(9800-9940,9951)*	-	1.0	-	0.9
BRAIN AND CNS	(191,192)	-	0.7	-	0.7
ALL CANCERS	(140-199)	36	49.2	43	49.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HOKE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.2	2	0.7
ESOPHAGUS	(150)	-	0.6	-	0.2
STOMACH	(151)	1	0.7	2	0.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	7	4.2	2	4.5
LIVER	(155)	-	0.2	1	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	-	0.7	-	0.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.3
LARYNX	(161)	1	0.8	1	0.2
BRONCHUS AND LUNG	(162.2-162.9)	9	7.6	2	3.6
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	1	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.2	1	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.1	-	0.9
BREAST	(174,175)	-	0.1	5	12.3
CERVIX UTERI	(180)	-	-	-	1.2
CORPUS UTERI	(179,182)	-	-	1	1.9
OVARY	(183.0)	-	-	1	1.4
PROSTATE	(185)	14	9.8	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	-	2.2	-	0.8
KIDNEY	(189.0, 189.1)	3	1.0	1	0.7
ENDOCRINE	(164.0,193,194)	-	0.3	2	0.5
LYMPHOMA	(9590-9714,9750)*	1	1.5	1	1.3
LEUKEMIA	(9800-9940,9951)*	-	0.9	1	0.7
BRAIN AND CNS	(191,192)	-	0.6	1	0.6
ALL CANCERS	(140-199)	45	36.7	27	36.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
HYDE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	0.4	-	0.2
ESOPHAGUS	(150)	-	0.2	-	0.1
STOMACH	(151)	-	0.3	-	0.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	2	1.8	-	1.7
LIVER	(155)	-	0.1	-	-
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.1
PANCREAS	(157)	-	0.3	-	0.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.1
LARYNX	(161)	-	0.3	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	1	3.0	1	1.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	-
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.4	-	0.3
BREAST	(174,175)	-	-	6	4.2
CERVIX UTERI	(180)	-	-	-	0.3
CORPUS UTERI	(179,182)	-	-	1	0.7
OVARY	(183.0)	-	-	2	0.5
PROSTATE	(185)	2	4.5	-	-
TESTES	(186)	-	0.1	-	-
BLADDER	(188)	2	0.9	-	0.3
KIDNEY	(189.0, 189.1)	-	0.4	-	0.2
ENDOCRINE	(164.0,193,194)	-	0.1	1	0.2
LYMPHOMA	(9590-9714,9750)*	-	0.5	-	0.5
LEUKEMIA	(9800-9940,9951)*	-	0.3	-	0.2
BRAIN AND CNS	(191,192)	-	0.2	-	0.2
ALL CANCERS	(140-199)	7	15.0	11	12.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
IREDELL COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	8	6.6	2	3.8
ESOPHAGUS	(150)	6	3.4	-	1.1
STOMACH	(151)	3	4.2	2	2.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	32	24.8	32	25.5
LIVER	(155)	1	1.4	3	0.7
GALLBLADDER, BILIARY	(156)	-	0.8	1	1.2
PANCREAS	(157)	1	4.2	7	4.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.2	3	1.5
LARYNX	(161)	2	4.6	1	1.1
BRONCHUS AND LUNG	(162.2-162.9)	54	43.6	18	20.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	1.3	2	0.5
BONE	(170)	-	0.3	-	0.3
SOFT TISSUE	(164.1,171)	-	1.0	3	0.9
MELANOMA OF THE SKIN	(8720-8790)*	16	5.6	5	4.4
BREAST	(174,175)	-	0.5	71	67.3
CERVIX UTERI	(180)	-	-	5	5.8
CORPUS UTERI	(179,182)	-	-	10	10.5
OVARY	(183.0)	-	-	4	7.8
PROSTATE	(185)	62	59.9	-	-
TESTES	(186)	3	1.7	-	-
BLADDER	(188)	16	12.9	5	4.5
KIDNEY	(189.0, 189.1)	5	5.7	3	3.7
ENDOCRINE	(164.0,193,194)	1	1.2	4	2.6
LYMPHOMA	(9590-9714,9750)*	6	7.5	6	7.2
LEUKEMIA	(9800-9940,9951)*	5	4.5	3	3.6
BRAIN AND CNS	(191,192)	3	3.1	6	2.9
ALL CANCERS	(140-199)	250	211.6	208	197.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
JACKSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.9	1	1.1
ESOPHAGUS	(150)	-	1.0	-	0.3
STOMACH	(151)	-	1.2	-	0.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	7	7.4	8	7.3
LIVER	(155)	-	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	-	1.3	4	1.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	1	0.4
LARYNX	(161)	2	1.3	1	0.3
BRONCHUS AND LUNG	(162.2-162.9)	6	12.8	4	5.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.3	1	0.3
MELANOMA OF THE SKIN	(8720-8790)*	4	1.6	4	1.2
BREAST	(174,175)	-	0.1	12	18.8
CERVIX UTERI	(180)	-	-	-	1.6
CORPUS UTERI	(179,182)	-	-	4	2.9
OVARY	(183.0)	-	-	2	2.2
PROSTATE	(185)	20	18.5	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	2	3.9	2	1.3
KIDNEY	(189.0, 189.1)	2	1.6	2	1.0
ENDOCRINE	(164.0,193,194)	-	0.3	1	0.7
LYMPHOMA	(9590-9714,9750)*	1	2.2	1	2.1
LEUKEMIA	(9800-9940,9951)*	1	1.3	2	1.0
BRAIN AND CNS	(191,192)	1	0.9	-	0.8
ALL CANCERS	(140-199)	56	62.9	57	55.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
JOHNSTON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	5.5	2	3.2
ESOPHAGUS	(150)	3	2.8	-	0.9
STOMACH	(151)	7	3.4	1	2.3
COLON AND RECTUM	(153,154.0,154.1,159.0)	20	20.0	10	21.3
LIVER	(155)	1	1.1	-	0.6
GALLBLADDER, BILIARY	(156)	1	0.7	1	1.0
PANCREAS	(157)	1	3.4	7	3.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	1.0	1	1.3
LARYNX	(161)	4	3.8	2	0.9
BRONCHUS AND LUNG	(162.2-162.9)	45	35.4	17	17.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	1.1	-	0.4
BONE	(170)	-	0.2	1	0.3
SOFT TISSUE	(164.1,171)	-	0.9	2	0.8
MELANOMA OF THE SKIN	(8720-8790)*	1	4.7	2	3.8
BREAST	(174,175)	-	0.4	47	57.0
CERVIX UTERI	(180)	-	-	5	5.0
CORPUS UTERI	(179,182)	-	-	6	8.9
OVARY	(183.0)	-	-	12	6.6
PROSTATE	(185)	48	47.8	-	-
TESTES	(186)	-	1.5	-	-
BLADDER	(188)	6	10.4	2	3.7
KIDNEY	(189.0, 189.1)	5	4.7	6	3.1
ENDOCRINE	(164.0,193,194)	1	1.0	2	2.3
LYMPHOMA	(9590-9714,9750)*	4	6.3	7	6.1
LEUKEMIA	(9800-9940,9951)*	1	3.7	4	3.0
BRAIN AND CNS	(191,192)	1	2.6	4	2.4
ALL CANCERS	(140-199)	165	171.8	155	166.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
JONES COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	0.7	-	0.4
ESOPHAGUS	(150)	1	0.3	-	0.1
STOMACH	(151)	-	0.4	-	0.3
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	2.5	3	2.6
LIVER	(155)	-	0.1	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.1
PANCREAS	(157)	-	0.4	-	0.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.1	-	0.2
LARYNX	(161)	1	0.5	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	8	4.5	1	2.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	0.1
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.6	1	0.4
BREAST	(174,175)	-	-	6	6.8
CERVIX UTERI	(180)	-	-	-	0.6
CORPUS UTERI	(179,182)	-	-	3	1.1
OVARY	(183.0)	-	-	-	0.8
PROSTATE	(185)	5	6.3	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	-	1.3	-	0.5
KIDNEY	(189.0, 189.1)	1	0.6	-	0.4
ENDOCRINE	(164.0,193,194)	1	0.1	-	0.3
LYMPHOMA	(9590-9714,9750)*	2	0.7	3	0.7
LEUKEMIA	(9800-9940,9951)*	-	0.4	-	0.4
BRAIN AND CNS	(191,192)	-	0.3	-	0.3
ALL CANCERS	(140-199)	23	21.5	19	20.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
LEE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	2.9	3	1.6
ESOPHAGUS	(150)	1	1.5	1	0.5
STOMACH	(151)	2	1.8	4	1.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	12	10.6	6	10.8
LIVER	(155)	1	0.6	-	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	2	0.5
PANCREAS	(157)	3	1.8	1	1.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.5	-	0.6
LARYNX	(161)	1	2.0	-	0.5
BRONCHUS AND LUNG	(162.2-162.9)	24	19.0	9	8.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.6	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.4	1	0.4
MELANOMA OF THE SKIN	(8720-8790)*	-	2.4	1	1.9
BREAST	(174,175)	-	0.2	32	28.8
CERVIX UTERI	(180)	-	-	4	2.5
CORPUS UTERI	(179,182)	-	-	6	4.5
OVARY	(183.0)	-	-	2	3.3
PROSTATE	(185)	41	26.0	-	-
TESTES	(186)	-	0.7	-	-
BLADDER	(188)	10	5.5	2	1.9
KIDNEY	(189.0, 189.1)	2	2.4	2	1.6
ENDOCRINE	(164.0,193,194)	-	0.5	-	1.1
LYMPHOMA	(9590-9714,9750)*	2	3.2	-	3.0
LEUKEMIA	(9800-9940,9951)*	4	1.9	4	1.5
BRAIN AND CNS	(191,192)	2	1.3	1	1.2
ALL CANCERS	(140-199)	112	91.2	88	84.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
LENOIR COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	3.8	5	2.4
ESOPHAGUS	(150)	1	2.0	1	0.7
STOMACH	(151)	1	2.4	1	1.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	9	14.1	20	16.3
LIVER	(155)	-	0.8	-	0.5
GALLBLADDER, BILIARY	(156)	-	0.5	-	0.8
PANCREAS	(157)	4	2.4	2	2.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.7	2	0.9
LARYNX	(161)	4	2.6	-	0.7
BRONCHUS AND LUNG	(162.2-162.9)	36	25.2	17	13.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	0.7	1	0.3
BONE	(170)	1	0.2	-	0.2
SOFT TISSUE	(164.1,171)	-	0.6	2	0.6
MELANOMA OF THE SKIN	(8720-8790)*	2	3.2	4	2.8
BREAST	(174,175)	-	0.3	34	42.6
CERVIX UTERI	(180)	-	-	5	3.6
CORPUS UTERI	(179,182)	-	-	4	6.7
OVARY	(183.0)	-	-	5	4.9
PROSTATE	(185)	29	34.5	-	-
TESTES	(186)	-	0.9	-	-
BLADDER	(188)	3	7.4	3	2.8
KIDNEY	(189.0, 189.1)	5	3.3	4	2.4
ENDOCRINE	(164.0,193,194)	1	0.7	2	1.6
LYMPHOMA	(9590-9714,9750)*	8	4.3	6	4.5
LEUKEMIA	(9800-9940,9951)*	3	2.6	2	2.2
BRAIN AND CNS	(191,192)	2	1.8	-	1.8
ALL CANCERS	(140-199)	120	121.6	137	125.1

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
LINCOLN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	3.4	1	1.8
ESOPHAGUS	(150)	2	1.7	1	0.5
STOMACH	(151)	1	2.0	2	1.3
COLON AND RECTUM	(153,154.0,154.1,159.0)	12	12.1	12	12.0
LIVER	(155)	-	0.7	-	0.4
GALLBLADDER, BILIARY	(156)	-	0.4	-	0.6
PANCREAS	(157)	3	2.1	-	2.0
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.6	1	0.7
LARYNX	(161)	3	2.3	1	0.5
BRONCHUS AND LUNG	(162.2-162.9)	17	21.5	12	9.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.6	-	0.2
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	-	0.5	-	0.5
MELANOMA OF THE SKIN	(8720-8790)*	4	2.9	4	2.2
BREAST	(174,175)	-	0.2	23	33.0
CERVIX UTERI	(180)	-	-	-	2.9
CORPUS UTERI	(179,182)	-	-	4	5.1
OVARY	(183.0)	-	-	3	3.8
PROSTATE	(185)	46	28.6	-	-
TESTES	(186)	1	0.9	-	-
BLADDER	(188)	7	6.3	6	2.1
KIDNEY	(189.0, 189.1)	6	2.9	1	1.8
ENDOCRINE	(164.0,193,194)	2	0.6	3	1.3
LYMPHOMA	(9590-9714,9750)*	7	3.8	4	3.5
LEUKEMIA	(9800-9940,9951)*	3	2.2	3	1.7
BRAIN AND CNS	(191,192)	1	1.6	-	1.4
ALL CANCERS	(140-199)	124	103.8	90	95.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MCDOWELL COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	2.6	2	1.5
ESOPHAGUS	(150)	-	1.4	-	0.4
STOMACH	(151)	1	1.7	1	1.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	10	10.0	6	10.1
LIVER	(155)	1	0.5	1	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.5
PANCREAS	(157)	3	1.7	1	1.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.5	-	0.6
LARYNX	(161)	2	1.8	1	0.4
BRONCHUS AND LUNG	(162.2-162.9)	17	17.5	11	8.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.5	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.4	2	0.4
MELANOMA OF THE SKIN	(8720-8790)*	-	2.2	4	1.7
BREAST	(174,175)	-	0.2	20	26.0
CERVIX UTERI	(180)	-	-	3	2.2
CORPUS UTERI	(179,182)	-	-	1	4.1
OVARY	(183.0)	-	-	5	3.0
PROSTATE	(185)	18	24.6	-	-
TESTES	(186)	-	0.6	-	-
BLADDER	(188)	6	5.2	1	1.8
KIDNEY	(189.0, 189.1)	4	2.3	4	1.4
ENDOCRINE	(164.0,193,194)	-	0.5	-	1.0
LYMPHOMA	(9590-9714,9750)*	4	3.0	2	2.8
LEUKEMIA	(9800-9940,9951)*	1	1.8	1	1.4
BRAIN AND CNS	(191,192)	1	1.2	1	1.1
ALL CANCERS	(140-199)	72	85.2	75	76.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MACON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	2.4	1	1.3
ESOPHAGUS	(150)	2	1.3	1	0.4
STOMACH	(151)	-	1.7	1	1.0
COLON AND RECTUM	(153,154.0,154.1,159.0)	3	10.3	9	9.4
LIVER	(155)	1	0.5	-	0.3
GALLBLADDER, BILIARY	(156)	-	0.4	-	0.5
PANCREAS	(157)	3	1.7	-	1.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.5
LARYNX	(161)	1	1.7	1	0.4
BRONCHUS AND LUNG	(162.2-162.9)	10	17.4	9	7.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.5	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	1	1.9	1	1.4
BREAST	(174,175)	-	0.2	23	22.4
CERVIX UTERI	(180)	-	-	1	1.7
CORPUS UTERI	(179,182)	-	-	7	3.7
OVARY	(183.0)	-	-	4	2.6
PROSTATE	(185)	41	27.0	-	-
TESTES	(186)	2	0.4	-	-
BLADDER	(188)	4	5.4	-	1.7
KIDNEY	(189.0, 189.1)	6	2.1	-	1.3
ENDOCRINE	(164.0,193,194)	-	0.4	1	0.7
LYMPHOMA	(9590-9714,9750)*	3	2.6	3	2.4
LEUKEMIA	(9800-9940,9951)*	2	1.6	2	1.2
BRAIN AND CNS	(191,192)	-	1.0	-	0.9
ALL CANCERS	(140-199)	81	85.9	71	67.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MADISON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.4	-	0.8
ESOPHAGUS	(150)	1	0.7	-	0.2
STOMACH	(151)	1	0.9	-	0.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	4	5.7	8	5.2
LIVER	(155)	-	0.3	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	2	1.0	-	0.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.3
LARYNX	(161)	-	1.0	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	14	9.6	2	4.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.1	2	0.8
BREAST	(174,175)	-	0.1	5	12.8
CERVIX UTERI	(180)	-	-	3	1.1
CORPUS UTERI	(179,182)	-	-	2	2.0
OVARY	(183.0)	-	-	-	1.5
PROSTATE	(185)	12	14.3	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	2	3.0	1	0.9
KIDNEY	(189.0, 189.1)	1	1.2	-	0.7
ENDOCRINE	(164.0,193,194)	1	0.2	-	0.5
LYMPHOMA	(9590-9714,9750)*	1	1.6	1	1.4
LEUKEMIA	(9800-9940,9951)*	-	1.0	1	0.7
BRAIN AND CNS	(191,192)	-	0.6	-	0.5
ALL CANCERS	(140-199)	47	47.6	26	38.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MARTIN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.7	1	1.1
ESOPHAGUS	(150)	1	0.9	-	0.3
STOMACH	(151)	2	1.1	-	0.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	4	6.5	12	7.3
LIVER	(155)	1	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.4
PANCREAS	(157)	1	1.1	2	1.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	1	0.4
LARYNX	(161)	-	1.2	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	7	11.5	2	5.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	1	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	-	1.4	1	1.2
BREAST	(174,175)	-	0.1	17	18.7
CERVIX UTERI	(180)	-	-	3	1.6
CORPUS UTERI	(179,182)	-	-	1	3.0
OVARY	(183.0)	-	-	2	2.2
PROSTATE	(185)	14	15.9	-	-
TESTES	(186)	1	0.4	-	-
BLADDER	(188)	3	3.4	-	1.3
KIDNEY	(189.0, 189.1)	1	1.5	-	1.1
ENDOCRINE	(164.0,193,194)	1	0.3	1	0.7
LYMPHOMA	(9590-9714,9750)*	5	1.9	2	2.0
LEUKEMIA	(9800-9940,9951)*	1	1.2	1	1.0
BRAIN AND CNS	(191,192)	1	0.8	-	0.8
ALL CANCERS	(140-199)	44	55.5	49	55.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MECKLENBURG COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	20	28.4	15	16.1
ESOPHAGUS	(150)	18	14.0	8	4.7
STOMACH	(151)	16	16.7	20	11.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	129	98.0	115	105.3
LIVER	(155)	6	5.6	1	3.1
GALLBLADDER, BILIARY	(156)	4	3.2	8	5.1
PANCREAS	(157)	19	16.8	21	17.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	10	5.1	5	6.3
LARYNX	(161)	14	19.0	6	4.6
BRONCHUS AND LUNG	(162.2-162.9)	187	173.4	95	85.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	5	5.4	3	2.2
BONE	(170)	1	1.4	1	1.8
SOFT TISSUE	(164.1,171)	4	4.9	5	4.4
MELANOMA OF THE SKIN	(8720-8790)*	24	25.6	12	21.4
BREAST	(174,175)	2	1.8	396	300.9
CERVIX UTERI	(180)	-	-	20	29.9
CORPUS UTERI	(179,182)	-	-	52	44.8
OVARY	(183.0)	-	-	38	35.1
PROSTATE	(185)	333	224.4	-	-
TESTES	(186)	14	10.4	-	-
BLADDER	(188)	54	50.4	22	18.4
KIDNEY	(189.0, 189.1)	32	23.7	14	16.0
ENDOCRINE	(164.0,193,194)	7	5.9	10	13.9
LYMPHOMA	(9590-9714,9750)*	40	34.3	34	32.3
LEUKEMIA	(9800-9940,9951)*	17	19.5	10	16.3
BRAIN AND CNS	(191,192)	22	14.3	17	13.6
ALL CANCERS	(140-199)	1032	849.9	994	867.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MITCHELL COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.2	-	0.7
ESOPHAGUS	(150)	-	0.6	-	0.2
STOMACH	(151)	1	0.8	1	0.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	2	4.8	2	4.8
LIVER	(155)	-	0.3	-	0.1
GALLBLADDER, BILIARY	(156)	1	0.2	-	0.2
PANCREAS	(157)	1	0.8	1	0.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.3
LARYNX	(161)	1	0.8	1	0.2
BRONCHUS AND LUNG	(162.2-162.9)	6	8.3	1	3.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	-	1.0	1	0.7
BREAST	(174,175)	-	0.1	6	11.8
CERVIX UTERI	(180)	-	-	-	1.0
CORPUS UTERI	(179,182)	-	-	5	1.9
OVARY	(183.0)	-	-	1	1.4
PROSTATE	(185)	4	12.2	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	2	2.5	-	0.9
KIDNEY	(189.0, 189.1)	-	1.0	-	0.7
ENDOCRINE	(164.0,193,194)	1	0.2	-	0.4
LYMPHOMA	(9590-9714,9750)*	1	1.3	1	1.3
LEUKEMIA	(9800-9940,9951)*	-	0.8	1	0.6
BRAIN AND CNS	(191,192)	-	0.5	1	0.5
ALL CANCERS	(140-199)	24	40.4	24	35.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MONTGOMERY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.6	1	0.9
ESOPHAGUS	(150)	1	0.8	-	0.3
STOMACH	(151)	1	1.0	-	0.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	6.0	8	6.1
LIVER	(155)	-	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	1	0.3
PANCREAS	(157)	1	1.0	2	1.0
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.3	2	0.4
LARYNX	(161)	1	1.1	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	9	10.5	7	4.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.3	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	3	1.4	3	1.0
BREAST	(174,175)	-	0.1	14	15.7
CERVIX UTERI	(180)	-	-	3	1.3
CORPUS UTERI	(179,182)	-	-	1	2.5
OVARY	(183.0)	-	-	1	1.8
PROSTATE	(185)	21	14.7	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	4	3.1	-	1.1
KIDNEY	(189.0, 189.1)	1	1.4	1	0.9
ENDOCRINE	(164.0,193,194)	-	0.3	-	0.6
LYMPHOMA	(9590-9714,9750)*	2	1.9	1	1.7
LEUKEMIA	(9800-9940,9951)*	1	1.1	-	0.8
BRAIN AND CNS	(191,192)	1	0.8	-	0.7
ALL CANCERS	(140-199)	55	51.5	50	46.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
MOORE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	8	5.3	4	3.1
ESOPHAGUS	(150)	2	2.9	1	0.9
STOMACH	(151)	5	3.7	3	2.3
COLON AND RECTUM	(153,154.0,154.1,159.0)	23	22.4	34	21.4
LIVER	(155)	1	1.2	-	0.6
GALLBLADDER, BILIARY	(156)	3	0.8	-	1.0
PANCREAS	(157)	6	3.8	6	3.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.0	-	1.2
LARYNX	(161)	4	3.8	1	0.8
BRONCHUS AND LUNG	(162.2-162.9)	28	39.2	15	17.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.1	-	0.4
BONE	(170)	1	0.2	-	0.2
SOFT TISSUE	(164.1,171)	2	0.8	1	0.7
MELANOMA OF THE SKIN	(8720-8790)*	10	4.3	3	3.2
BREAST	(174,175)	-	0.4	59	51.6
CERVIX UTERI	(180)	-	-	5	4.0
CORPUS UTERI	(179,182)	-	-	10	8.6
OVARY	(183.0)	-	-	6	6.0
PROSTATE	(185)	94	59.4	-	-
TESTES	(186)	1	1.0	-	-
BLADDER	(188)	13	11.8	4	3.8
KIDNEY	(189.0, 189.1)	5	4.7	3	3.0
ENDOCRINE	(164.0,193,194)	-	0.9	-	1.7
LYMPHOMA	(9590-9714,9750)*	6	6.0	4	5.6
LEUKEMIA	(9800-9940,9951)*	1	3.7	2	2.7
BRAIN AND CNS	(191,192)	4	2.4	2	2.1
ALL CANCERS	(140-199)	233	190.8	175	155.9

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
NASH COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	8	4.9	6	2.9
ESOPHAGUS	(150)	3	2.5	-	0.9
STOMACH	(151)	3	3.0	1	2.2
COLON AND RECTUM	(153,154.0,154.1,159.0)	14	17.9	14	19.6
LIVER	(155)	-	1.0	-	0.6
GALLBLADDER, BILIARY	(156)	1	0.6	2	0.9
PANCREAS	(157)	7	3.1	-	3.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.9	-	1.1
LARYNX	(161)	2	3.4	1	0.8
BRONCHUS AND LUNG	(162.2-162.9)	42	31.7	15	15.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	3	0.9	1	0.4
BONE	(170)	-	0.2	-	0.3
SOFT TISSUE	(164.1,171)	-	0.8	1	0.7
MELANOMA OF THE SKIN	(8720-8790)*	4	4.2	1	3.5
BREAST	(174,175)	-	0.3	51	52.3
CERVIX UTERI	(180)	-	-	5	4.7
CORPUS UTERI	(179,182)	-	-	3	8.1
OVARY	(183.0)	-	-	3	6.1
PROSTATE	(185)	59	43.0	-	-
TESTES	(186)	2	1.4	-	-
BLADDER	(188)	5	9.3	1	3.4
KIDNEY	(189.0, 189.1)	11	4.2	4	2.9
ENDOCRINE	(164.0,193,194)	-	0.9	1	2.1
LYMPHOMA	(9590-9714,9750)*	2	5.6	8	5.6
LEUKEMIA	(9800-9940,9951)*	5	3.3	2	2.8
BRAIN AND CNS	(191,192)	4	2.3	1	2.3
ALL CANCERS	(140-199)	190	153.8	130	153.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
NEW HANOVER COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	11	8.0	7	4.6
ESOPHAGUS	(150)	5	4.1	-	1.4
STOMACH	(151)	6	4.9	7	3.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	46	29.3	33	31.1
LIVER	(155)	2	1.6	-	0.9
GALLBLADDER, BILIARY	(156)	1	1.0	-	1.5
PANCREAS	(157)	3	5.0	9	5.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.4	-	1.8
LARYNX	(161)	7	5.5	3	1.3
BRONCHUS AND LUNG	(162.2-162.9)	60	52.2	30	25.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	1.5	-	0.6
BONE	(170)	2	0.4	1	0.4
SOFT TISSUE	(164.1,171)	1	1.3	2	1.2
MELANOMA OF THE SKIN	(8720-8790)*	5	6.8	5	5.6
BREAST	(174,175)	3	0.5	105	83.3
CERVIX UTERI	(180)	-	-	6	7.5
CORPUS UTERI	(179,182)	-	-	14	12.9
OVARY	(183.0)	-	-	11	9.7
PROSTATE	(185)	62	71.1	-	-
TESTES	(186)	2	2.2	-	-
BLADDER	(188)	17	15.3	5	5.4
KIDNEY	(189.0, 189.1)	6	6.8	4	4.6
ENDOCRINE	(164.0,193,194)	2	1.5	3	3.4
LYMPHOMA	(9590-9714,9750)*	10	9.2	12	8.9
LEUKEMIA	(9800-9940,9951)*	9	5.4	4	4.4
BRAIN AND CNS	(191,192)	3	3.7	2	3.6
ALL CANCERS	(140-199)	284	252.5	277	243.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
NORTHAMPTON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	1.6	-	1.0
ESOPHAGUS	(150)	-	0.9	-	0.3
STOMACH	(151)	-	1.1	2	0.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	7	6.4	9	6.6
LIVER	(155)	-	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	2	1.1	-	1.1
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	2	0.4
LARYNX	(161)	1	1.1	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	6	11.2	5	5.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.3	1	1.0
BREAST	(174,175)	1	0.1	17	16.4
CERVIX UTERI	(180)	-	-	7	1.3
CORPUS UTERI	(179,182)	-	-	3	2.7
OVARY	(183.0)	-	-	2	1.9
PROSTATE	(185)	22	16.3	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	-	3.4	-	1.2
KIDNEY	(189.0, 189.1)	-	1.4	2	0.9
ENDOCRINE	(164.0,193,194)	-	0.3	1	0.6
LYMPHOMA	(9590-9714,9750)*	1	1.8	3	1.8
LEUKEMIA	(9800-9940,9951)*	1	1.1	-	0.9
BRAIN AND CNS	(191,192)	-	0.7	-	0.7
ALL CANCERS	(140-199)	51	54.5	55	49.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ONSLOW COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	7	5.3	2	2.5
ESOPHAGUS	(150)	4	2.4	1	0.7
STOMACH	(151)	1	2.8	3	1.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	22	16.0	21	15.5
LIVER	(155)	-	1.0	1	0.5
GALLBLADDER, BILIARY	(156)	3	0.5	2	0.7
PANCREAS	(157)	5	2.7	4	2.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	1.0	-	1.0
LARYNX	(161)	4	3.2	-	0.7
BRONCHUS AND LUNG	(162.2-162.9)	21	28.6	20	13.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	1.1	-	0.3
BONE	(170)	-	0.4	1	0.4
SOFT TISSUE	(164.1,171)	-	1.3	-	0.8
MELANOMA OF THE SKIN	(8720-8790)*	7	5.3	2	3.7
BREAST	(174,175)	-	0.3	45	47.4
CERVIX UTERI	(180)	-	-	10	5.3
CORPUS UTERI	(179,182)	-	-	10	7.0
OVARY	(183.0)	-	-	4	5.7
PROSTATE	(185)	34	34.3	-	-
TESTES	(186)	2	4.1	-	-
BLADDER	(188)	4	8.1	3	2.7
KIDNEY	(189.0, 189.1)	3	4.1	1	2.6
ENDOCRINE	(164.0,193,194)	2	1.6	3	2.7
LYMPHOMA	(9590-9714,9750)*	6	8.7	6	5.5
LEUKEMIA	(9800-9940,9951)*	3	4.3	4	3.0
BRAIN AND CNS	(191,192)	3	3.5	2	2.5
ALL CANCERS	(140-199)	143	149.2	151	137.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ORANGE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	4.7	4	2.7
ESOPHAGUS	(150)	1	2.3	-	0.8
STOMACH	(151)	1	2.9	-	1.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	13	16.9	12	17.3
LIVER	(155)	-	0.9	1	0.5
GALLBLADDER, BILIARY	(156)	2	0.6	1	0.8
PANCREAS	(157)	5	2.9	1	2.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.9	-	1.0
LARYNX	(161)	4	3.1	1	0.7
BRONCHUS AND LUNG	(162.2-162.9)	26	29.1	18	13.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.9	1	0.4
BONE	(170)	-	0.3	-	0.3
SOFT TISSUE	(164.1,171)	-	0.8	-	0.8
MELANOMA OF THE SKIN	(8720-8790)*	7	4.3	7	3.6
BREAST	(174,175)	3	0.3	61	48.9
CERVIX UTERI	(180)	-	-	6	5.1
CORPUS UTERI	(179,182)	-	-	11	7.2
OVARY	(183.0)	-	-	8	5.9
PROSTATE	(185)	49	39.4	-	-
TESTES	(186)	3	1.9	-	-
BLADDER	(188)	8	8.7	9	3.0
KIDNEY	(189.0, 189.1)	5	3.9	2	2.6
ENDOCRINE	(164.0,193,194)	-	1.0	1	2.5
LYMPHOMA	(9590-9714,9750)*	7	6.1	9	5.7
LEUKEMIA	(9800-9940,9951)*	5	3.3	5	2.8
BRAIN AND CNS	(191,192)	4	2.4	1	2.2
ALL CANCERS	(140-199)	151	145.8	169	142.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
PAMLICO COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.0	-	0.5
ESOPHAGUS	(150)	1	0.5	2	0.2
STOMACH	(151)	-	0.6	1	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	8	3.8	6	3.7
LIVER	(155)	1	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	2	0.2
PANCREAS	(157)	-	0.6	-	0.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.2
LARYNX	(161)	1	0.7	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	8	6.7	4	2.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	1	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	1	0.8	-	0.6
BREAST	(174,175)	-	0.1	1	9.3
CERVIX UTERI	(180)	-	-	1	0.8
CORPUS UTERI	(179,182)	-	-	1	1.5
OVARY	(183.0)	-	-	1	1.1
PROSTATE	(185)	15	9.5	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	-	2.0	-	0.7
KIDNEY	(189.0, 189.1)	1	0.8	-	0.5
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.3
LYMPHOMA	(9590-9714,9750)*	-	1.0	1	1.0
LEUKEMIA	(9800-9940,9951)*	-	0.6	-	0.5
BRAIN AND CNS	(191,192)	1	0.4	-	0.4
ALL CANCERS	(140-199)	40	32.0	23	27.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
PASQUOTANK COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	2.0	1	1.2
ESOPHAGUS	(150)	-	1.0	-	0.4
STOMACH	(151)	1	1.3	1	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	11	7.7	7	8.3
LIVER	(155)	-	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	1	1.3	1	1.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.5
LARYNX	(161)	-	1.4	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	3	13.4	4	6.4
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	-	1.7	-	1.4
BREAST	(174,175)	1	0.1	18	20.8
CERVIX UTERI	(180)	-	-	-	1.8
CORPUS UTERI	(179,182)	-	-	5	3.3
OVARY	(183.0)	-	-	-	2.5
PROSTATE	(185)	16	19.3	-	-
TESTES	(186)	-	0.5	-	-
BLADDER	(188)	6	4.0	2	1.5
KIDNEY	(189.0, 189.1)	1	1.7	4	1.2
ENDOCRINE	(164.0,193,194)	-	0.4	1	0.8
LYMPHOMA	(9590-9714,9750)*	-	2.3	-	2.3
LEUKEMIA	(9800-9940,9951)*	1	1.4	1	1.2
BRAIN AND CNS	(191,192)	-	0.9	-	0.9
ALL CANCERS	(140-199)	44	65.9	48	62.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
PENDER COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	2.3	2	1.2
ESOPHAGUS	(150)	3	1.2	-	0.4
STOMACH	(151)	2	1.4	-	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	8.5	5	8.2
LIVER	(155)	1	0.5	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	1	0.4
PANCREAS	(157)	3	1.5	2	1.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.5
LARYNX	(161)	3	1.6	1	0.3
BRONCHUS AND LUNG	(162.2-162.9)	9	15.3	7	6.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	2	1.9	-	1.4
BREAST	(174,175)	-	0.2	18	21.8
CERVIX UTERI	(180)	-	-	2	1.9
CORPUS UTERI	(179,182)	-	-	3	3.4
OVARY	(183.0)	-	-	3	2.5
PROSTATE	(185)	15	20.8	-	-
TESTES	(186)	1	0.5	-	-
BLADDER	(188)	7	4.4	1	1.4
KIDNEY	(189.0, 189.1)	1	2.0	1	1.2
ENDOCRINE	(164.0,193,194)	-	0.4	-	0.8
LYMPHOMA	(9590-9714,9750)*	2	2.5	1	2.3
LEUKEMIA	(9800-9940,9951)*	-	1.5	2	1.1
BRAIN AND CNS	(191,192)	1	1.0	-	0.9
ALL CANCERS	(140-199)	62	72.9	52	63.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
PERQUIMANS COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	0.9	-	0.5
ESOPHAGUS	(150)	-	0.5	-	0.1
STOMACH	(151)	-	0.6	-	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	3.7	2	3.4
LIVER	(155)	1	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	-	0.2
PANCREAS	(157)	-	0.6	-	0.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.2
LARYNX	(161)	-	0.6	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	2	6.3	2	2.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.7	-	0.5
BREAST	(174,175)	-	0.1	5	8.3
CERVIX UTERI	(180)	-	-	-	0.7
CORPUS UTERI	(179,182)	-	-	1	1.4
OVARY	(183.0)	-	-	-	1.0
PROSTATE	(185)	3	9.4	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	3	1.9	-	0.6
KIDNEY	(189.0, 189.1)	-	0.8	2	0.5
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.3
LYMPHOMA	(9590-9714,9750)*	-	1.0	-	0.9
LEUKEMIA	(9800-9940,9951)*	-	0.6	1	0.4
BRAIN AND CNS	(191,192)	-	0.4	-	0.3
ALL CANCERS	(140-199)	12	30.8	14	25.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
PERSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	2.1	-	1.3
ESOPHAGUS	(150)	-	1.1	-	0.4
STOMACH	(151)	1	1.3	-	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	7	7.9	5	8.6
LIVER	(155)	1	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	-	1.4	1	1.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.4	-	0.5
LARYNX	(161)	2	1.4	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	13	13.9	7	6.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.4	1	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	1	0.3	1	0.3
MELANOMA OF THE SKIN	(8720-8790)*	1	1.8	-	1.4
BREAST	(174,175)	-	0.1	26	21.8
CERVIX UTERI	(180)	-	-	1	1.9
CORPUS UTERI	(179,182)	-	-	3	3.4
OVARY	(183.0)	-	-	3	2.6
PROSTATE	(185)	24	19.4	-	-
TESTES	(186)	1	0.5	-	-
BLADDER	(188)	5	4.1	1	1.5
KIDNEY	(189.0, 189.1)	2	1.8	2	1.2
ENDOCRINE	(164.0,193,194)	-	0.4	1	0.8
LYMPHOMA	(9590-9714,9750)*	3	2.4	2	2.4
LEUKEMIA	(9800-9940,9951)*	1	1.4	1	1.2
BRAIN AND CNS	(191,192)	2	1.0	1	0.9
ALL CANCERS	(140-199)	71	67.6	60	64.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
PITT COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	7	5.6	4	3.4
ESOPHAGUS	(150)	5	2.8	1	1.0
STOMACH	(151)	6	3.4	1	2.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	28	20.0	27	22.7
LIVER	(155)	-	1.1	-	0.7
GALLBLADDER, BILIARY	(156)	-	0.6	1	1.1
PANCREAS	(157)	6	3.4	6	3.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	1.0	3	1.3
LARYNX	(161)	3	3.8	1	0.9
BRONCHUS AND LUNG	(162.2-162.9)	30	35.5	9	18.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.1	-	0.5
BONE	(170)	-	0.3	-	0.4
SOFT TISSUE	(164.1,171)	-	1.0	-	0.9
MELANOMA OF THE SKIN	(8720-8790)*	5	5.0	6	4.3
BREAST	(174,175)	1	0.4	56	61.5
CERVIX UTERI	(180)	-	-	3	5.9
CORPUS UTERI	(179,182)	-	-	7	9.4
OVARY	(183.0)	-	-	1	7.3
PROSTATE	(185)	45	47.1	-	-
TESTES	(186)	2	2.0	-	-
BLADDER	(188)	6	10.3	1	4.0
KIDNEY	(189.0, 189.1)	6	4.7	2	3.4
ENDOCRINE	(164.0,193,194)	-	1.2	4	2.8
LYMPHOMA	(9590-9714,9750)*	5	6.9	6	6.9
LEUKEMIA	(9800-9940,9951)*	6	4.0	1	3.5
BRAIN AND CNS	(191,192)	2	2.9	4	2.8
ALL CANCERS	(140-199)	171	173.7	156	181.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
POLK COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.4	-	0.9
ESOPHAGUS	(150)	-	0.8	-	0.3
STOMACH	(151)	3	1.0	-	0.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	6.3	1	6.4
LIVER	(155)	-	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	1	0.2	1	0.3
PANCREAS	(157)	2	1.1	-	1.1
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	-	0.3
LARYNX	(161)	-	1.0	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	4	10.5	-	4.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	1	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.1	-	0.9
BREAST	(174,175)	1	0.1	18	14.4
CERVIX UTERI	(180)	-	-	1	1.1
CORPUS UTERI	(179,182)	-	-	1	2.4
OVARY	(183.0)	-	-	-	1.7
PROSTATE	(185)	14	16.7	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	1	3.3	1	1.1
KIDNEY	(189.0, 189.1)	1	1.3	-	0.9
ENDOCRINE	(164.0,193,194)	-	0.2	2	0.4
LYMPHOMA	(9590-9714,9750)*	-	1.6	2	1.6
LEUKEMIA	(9800-9940,9951)*	1	1.0	-	0.8
BRAIN AND CNS	(191,192)	-	0.6	1	0.6
ALL CANCERS	(140-199)	32	52.3	32	44.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
RANDOLPH COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	7.2	2	3.9
ESOPHAGUS	(150)	4	3.7	1	1.2
STOMACH	(151)	5	4.5	1	2.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	25	26.5	33	26.4
LIVER	(155)	3	1.5	-	0.8
GALLBLADDER, BILIARY	(156)	1	0.9	4	1.3
PANCREAS	(157)	5	4.5	5	4.4
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	1.3	1	1.6
LARYNX	(161)	4	5.0	-	1.1
BRONCHUS AND LUNG	(162.2-162.9)	48	46.6	21	21.4
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.4	-	0.5
BONE	(170)	-	0.3	-	0.4
SOFT TISSUE	(164.1,171)	2	1.1	-	1.0
MELANOMA OF THE SKIN	(8720-8790)*	9	6.2	4	4.8
BREAST	(174,175)	-	0.5	69	71.6
CERVIX UTERI	(180)	-	-	5	6.4
CORPUS UTERI	(179,182)	-	-	9	11.0
OVARY	(183.0)	-	-	8	8.3
PROSTATE	(185)	91	63.1	-	-
TESTES	(186)	4	2.0	-	-
BLADDER	(188)	13	13.7	6	4.6
KIDNEY	(189.0, 189.1)	7	6.2	7	3.9
ENDOCRINE	(164.0,193,194)	2	1.4	8	2.9
LYMPHOMA	(9590-9714,9750)*	9	8.3	4	7.6
LEUKEMIA	(9800-9940,9951)*	4	4.9	5	3.7
BRAIN AND CNS	(191,192)	3	3.4	5	3.1
ALL CANCERS	(140-199)	262	226.7	207	208.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
RICHMOND COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	7	3.0	3	1.8
ESOPHAGUS	(150)	2	1.6	1	0.5
STOMACH	(151)	-	1.9	2	1.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	16	11.6	6	12.4
LIVER	(155)	-	0.6	-	0.4
GALLBLADDER, BILIARY	(156)	2	0.4	-	0.6
PANCREAS	(157)	2	2.0	2	2.1
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.5	-	0.7
LARYNX	(161)	1	2.1	-	0.5
BRONCHUS AND LUNG	(162.2-162.9)	18	20.4	8	9.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.6	-	0.2
BONE	(170)	-	0.1	-	0.2
SOFT TISSUE	(164.1,171)	-	0.5	-	0.4
MELANOMA OF THE SKIN	(8720-8790)*	1	2.5	2	2.1
BREAST	(174,175)	-	0.2	31	32.0
CERVIX UTERI	(180)	-	-	3	2.7
CORPUS UTERI	(179,182)	-	-	7	5.1
OVARY	(183.0)	-	-	1	3.7
PROSTATE	(185)	31	28.6	-	-
TESTES	(186)	1	0.7	-	-
BLADDER	(188)	9	6.0	4	2.2
KIDNEY	(189.0, 189.1)	1	2.6	1	1.8
ENDOCRINE	(164.0,193,194)	-	0.6	-	1.2
LYMPHOMA	(9590-9714,9750)*	3	3.4	1	3.4
LEUKEMIA	(9800-9940,9951)*	-	2.1	2	1.7
BRAIN AND CNS	(191,192)	3	1.4	-	1.4
ALL CANCERS	(140-199)	101	98.7	84	94.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ROBESON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	5.8	2	3.5
ESOPHAGUS	(150)	3	2.9	1	1.0
STOMACH	(151)	2	3.5	3	2.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	18	20.7	18	23.3
LIVER	(155)	-	1.2	-	0.7
GALLBLADDER, BILIARY	(156)	1	0.7	-	1.1
PANCREAS	(157)	2	3.6	2	3.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	1.0	1	1.4
LARYNX	(161)	4	3.9	-	1.0
BRONCHUS AND LUNG	(162.2-162.9)	51	36.7	11	18.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.1	1	0.5
BONE	(170)	-	0.3	-	0.4
SOFT TISSUE	(164.1,171)	-	1.0	1	0.9
MELANOMA OF THE SKIN	(8720-8790)*	1	5.0	2	4.3
BREAST	(174,175)	1	0.4	49	63.2
CERVIX UTERI	(180)	-	-	7	5.8
CORPUS UTERI	(179,182)	-	-	6	9.8
OVARY	(183.0)	-	-	7	7.4
PROSTATE	(185)	45	49.3	-	-
TESTES	(186)	-	1.7	-	-
BLADDER	(188)	13	10.7	3	4.1
KIDNEY	(189.0, 189.1)	4	4.9	2	3.5
ENDOCRINE	(164.0,193,194)	-	1.2	-	2.7
LYMPHOMA	(9590-9714,9750)*	7	6.8	2	6.8
LEUKEMIA	(9800-9940,9951)*	5	4.1	3	3.5
BRAIN AND CNS	(191,192)	3	2.9	3	2.9
ALL CANCERS	(140-199)	175	179.2	137	185.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ROCKINGHAM COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	7	6.0	4	3.6
ESOPHAGUS	(150)	4	3.1	1	1.1
STOMACH	(151)	4	3.8	-	2.7
COLON AND RECTUM	(153,154.0,154.1,159.0)	26	22.9	29	24.7
LIVER	(155)	2	1.2	1	0.7
GALLBLADDER, BILIARY	(156)	1	0.8	2	1.2
PANCREAS	(157)	-	3.9	3	4.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	1.1	1	1.4
LARYNX	(161)	2	4.2	1	1.0
BRONCHUS AND LUNG	(162.2-162.9)	34	40.0	16	19.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	1.2	-	0.5
BONE	(170)	-	0.3	2	0.3
SOFT TISSUE	(164.1,171)	-	0.9	2	0.9
MELANOMA OF THE SKIN	(8720-8790)*	6	5.1	5	4.1
BREAST	(174,175)	-	0.4	56	63.5
CERVIX UTERI	(180)	-	-	7	5.4
CORPUS UTERI	(179,182)	-	-	10	10.0
OVARY	(183.0)	-	-	6	7.4
PROSTATE	(185)	36	55.9	-	-
TESTES	(186)	1	1.5	-	-
BLADDER	(188)	7	11.9	3	4.3
KIDNEY	(189.0, 189.1)	2	5.2	2	3.5
ENDOCRINE	(164.0,193,194)	1	1.1	4	2.4
LYMPHOMA	(9590-9714,9750)*	3	6.8	8	6.8
LEUKEMIA	(9800-9940,9951)*	5	4.1	3	3.4
BRAIN AND CNS	(191,192)	2	2.8	1	2.7
ALL CANCERS	(140-199)	154	194.8	180	187.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
ROWAN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	5	8.1	5	4.7
ESOPHAGUS	(150)	4	4.2	-	1.4
STOMACH	(151)	3	5.3	1	3.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	39	31.8	29	32.5
LIVER	(155)	1	1.7	1	0.9
GALLBLADDER, BILIARY	(156)	1	1.1	2	1.6
PANCREAS	(157)	3	5.4	4	5.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	1.5	3	1.8
LARYNX	(161)	5	5.7	-	1.3
BRONCHUS AND LUNG	(162.2-162.9)	35	55.0	9	25.3
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.6	1	0.6
BONE	(170)	1	0.3	-	0.4
SOFT TISSUE	(164.1,171)	1	1.3	-	1.1
MELANOMA OF THE SKIN	(8720-8790)*	14	6.8	10	5.3
BREAST	(174,175)	-	0.6	73	81.3
CERVIX UTERI	(180)	-	-	4	6.9
CORPUS UTERI	(179,182)	-	-	11	13.0
OVARY	(183.0)	-	-	6	9.6
PROSTATE	(185)	29	79.1	-	-
TESTES	(186)	1	2.0	-	-
BLADDER	(188)	16	16.6	6	5.7
KIDNEY	(189.0, 189.1)	3	7.0	2	4.6
ENDOCRINE	(164.0,193,194)	1	1.5	3	3.0
LYMPHOMA	(9590-9714,9750)*	7	9.3	14	8.9
LEUKEMIA	(9800-9940,9951)*	6	5.6	5	4.4
BRAIN AND CNS	(191,192)	4	3.7	3	3.4
ALL CANCERS	(140-199)	191	269.9	204	243.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
RUTHERFORD COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	4.2	1	2.5
ESOPHAGUS	(150)	1	2.2	-	0.7
STOMACH	(151)	2	2.7	1	1.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	17	16.5	13	17.3
LIVER	(155)	2	0.9	2	0.5
GALLBLADDER, BILIARY	(156)	-	0.6	2	0.8
PANCREAS	(157)	3	2.8	3	2.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.7	-	1.0
LARYNX	(161)	1	2.9	1	0.7
BRONCHUS AND LUNG	(162.2-162.9)	23	28.5	10	13.4
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	3	0.8	-	0.3
BONE	(170)	-	0.2	1	0.2
SOFT TISSUE	(164.1,171)	1	0.6	1	0.6
MELANOMA OF THE SKIN	(8720-8790)*	2	3.5	4	2.8
BREAST	(174,175)	1	0.3	36	42.9
CERVIX UTERI	(180)	-	-	3	3.6
CORPUS UTERI	(179,182)	-	-	4	6.9
OVARY	(183.0)	-	-	1	5.0
PROSTATE	(185)	63	41.1	-	-
TESTES	(186)	-	1.0	-	-
BLADDER	(188)	11	8.6	3	3.0
KIDNEY	(189.0, 189.1)	1	3.6	-	2.4
ENDOCRINE	(164.0,193,194)	-	0.7	3	1.6
LYMPHOMA	(9590-9714,9750)*	3	4.8	4	4.7
LEUKEMIA	(9800-9940,9951)*	5	2.9	5	2.3
BRAIN AND CNS	(191,192)	2	1.9	2	1.8
ALL CANCERS	(140-199)	156	139.6	108	128.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
SAMPSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	3.3	2	2.0
ESOPHAGUS	(150)	3	1.7	-	0.6
STOMACH	(151)	1	2.1	-	1.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	14	12.8	15	13.5
LIVER	(155)	-	0.7	-	0.4
GALLBLADDER, BILIARY	(156)	-	0.4	-	0.7
PANCREAS	(157)	-	2.2	2	2.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.6	-	0.8
LARYNX	(161)	3	2.3	-	0.5
BRONCHUS AND LUNG	(162.2-162.9)	24	22.3	2	10.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	0.6	-	0.3
BONE	(170)	1	0.1	-	0.2
SOFT TISSUE	(164.1,171)	-	0.5	1	0.5
MELANOMA OF THE SKIN	(8720-8790)*	3	2.8	-	2.2
BREAST	(174,175)	-	0.2	37	34.6
CERVIX UTERI	(180)	-	-	1	2.9
CORPUS UTERI	(179,182)	-	-	3	5.5
OVARY	(183.0)	-	-	4	4.0
PROSTATE	(185)	22	31.4	-	-
TESTES	(186)	-	0.8	-	-
BLADDER	(188)	2	6.7	-	2.4
KIDNEY	(189.0, 189.1)	2	2.9	1	1.9
ENDOCRINE	(164.0,193,194)	-	0.6	4	1.3
LYMPHOMA	(9590-9714,9750)*	3	3.8	5	3.7
LEUKEMIA	(9800-9940,9951)*	1	2.3	3	1.9
BRAIN AND CNS	(191,192)	-	1.5	2	1.5
ALL CANCERS	(140-199)	87	108.5	87	102.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
SCOTLAND COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.9	1	1.2
ESOPHAGUS	(150)	1	1.0	1	0.4
STOMACH	(151)	1	1.1	1	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	8	6.8	2	8.0
LIVER	(155)	-	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	1	0.2	-	0.4
PANCREAS	(157)	-	1.2	1	1.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	1	0.5
LARYNX	(161)	-	1.3	2	0.3
BRONCHUS AND LUNG	(162.2-162.9)	7	12.1	5	6.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	1	1.6	1	1.5
BREAST	(174,175)	-	0.1	7	21.7
CERVIX UTERI	(180)	-	-	2	2.0
CORPUS UTERI	(179,182)	-	-	4	3.3
OVARY	(183.0)	-	-	2	2.5
PROSTATE	(185)	12	16.2	-	-
TESTES	(186)	1	0.5	-	-
BLADDER	(188)	1	3.5	-	1.4
KIDNEY	(189.0, 189.1)	1	1.6	-	1.2
ENDOCRINE	(164.0,193,194)	-	0.4	1	0.9
LYMPHOMA	(9590-9714,9750)*	-	2.2	2	2.3
LEUKEMIA	(9800-9940,9951)*	-	1.3	2	1.2
BRAIN AND CNS	(191,192)	-	0.9	-	1.0
ALL CANCERS	(140-199)	37	58.6	36	63.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
STANLY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	3.7	2	2.2
ESOPHAGUS	(150)	1	1.9	-	0.6
STOMACH	(151)	3	2.3	2	1.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	8	14.1	13	14.9
LIVER	(155)	-	0.8	-	0.4
GALLBLADDER, BILIARY	(156)	1	0.5	-	0.7
PANCREAS	(157)	2	2.4	2	2.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.7	-	0.9
LARYNX	(161)	1	2.6	2	0.6
BRONCHUS AND LUNG	(162.2-162.9)	26	24.7	9	11.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.7	-	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	1	0.6	-	0.5
MELANOMA OF THE SKIN	(8720-8790)*	4	3.1	2	2.4
BREAST	(174,175)	-	0.3	35	37.7
CERVIX UTERI	(180)	-	-	5	3.2
CORPUS UTERI	(179,182)	-	-	3	6.0
OVARY	(183.0)	-	-	2	4.4
PROSTATE	(185)	27	34.7	-	-
TESTES	(186)	1	0.9	-	-
BLADDER	(188)	8	7.3	4	2.6
KIDNEY	(189.0, 189.1)	4	3.2	2	2.1
ENDOCRINE	(164.0,193,194)	-	0.7	-	1.4
LYMPHOMA	(9590-9714,9750)*	7	4.2	4	4.1
LEUKEMIA	(9800-9940,9951)*	4	2.5	2	2.0
BRAIN AND CNS	(191,192)	-	1.7	-	1.6
ALL CANCERS	(140-199)	105	120.3	94	112.0

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
STOKES COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	2.5	1	1.4
ESOPHAGUS	(150)	-	1.2	1	0.4
STOMACH	(151)	3	1.5	1	1.0
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	9.0	8	9.0
LIVER	(155)	-	0.5	-	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	3	1.5	2	1.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.4	1	0.5
LARYNX	(161)	2	1.7	-	0.4
BRONCHUS AND LUNG	(162.2-162.9)	21	15.7	10	7.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.5	1	0.2
BONE	(170)	-	0.1	1	0.1
SOFT TISSUE	(164.1,171)	-	0.4	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	2	2.1	2	1.7
BREAST	(174,175)	-	0.2	23	24.6
CERVIX UTERI	(180)	-	-	1	2.2
CORPUS UTERI	(179,182)	-	-	4	3.8
OVARY	(183.0)	-	-	3	2.9
PROSTATE	(185)	27	21.0	-	-
TESTES	(186)	1	0.7	-	-
BLADDER	(188)	6	4.6	3	1.6
KIDNEY	(189.0, 189.1)	3	2.1	1	1.3
ENDOCRINE	(164.0,193,194)	1	0.5	1	1.0
LYMPHOMA	(9590-9714,9750)*	4	2.8	-	2.6
LEUKEMIA	(9800-9940,9951)*	3	1.7	2	1.3
BRAIN AND CNS	(191,192)	4	1.2	1	1.1
ALL CANCERS	(140-199)	92	76.4	72	71.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
SURRY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	4.5	1	2.7
ESOPHAGUS	(150)	3	2.3	1	0.8
STOMACH	(151)	2	2.8	3	2.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	12	17.1	25	18.8
LIVER	(155)	2	0.9	1	0.5
GALLBLADDER, BILIARY	(156)	-	0.6	-	0.9
PANCREAS	(157)	3	2.9	2	3.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	0.8	2	1.1
LARYNX	(161)	2	3.1	1	0.7
BRONCHUS AND LUNG	(162.2-162.9)	26	30.0	14	14.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	0.9	-	0.4
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	-	0.7	-	0.7
MELANOMA OF THE SKIN	(8720-8790)*	2	3.8	8	3.1
BREAST	(174,175)	-	0.3	40	47.6
CERVIX UTERI	(180)	-	-	5	4.0
CORPUS UTERI	(179,182)	-	-	6	7.5
OVARY	(183.0)	-	-	6	5.6
PROSTATE	(185)	63	41.5	-	-
TESTES	(186)	2	1.1	-	-
BLADDER	(188)	7	8.9	2	3.3
KIDNEY	(189.0, 189.1)	2	3.9	2	2.7
ENDOCRINE	(164.0,193,194)	1	0.8	1	1.7
LYMPHOMA	(9590-9714,9750)*	6	5.0	1	5.1
LEUKEMIA	(9800-9940,9951)*	2	3.0	3	2.5
BRAIN AND CNS	(191,192)	4	2.0	1	2.0
ALL CANCERS	(140-199)	155	145.0	136	141.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
SWAIN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	0.9	1	0.5
ESOPHAGUS	(150)	-	0.4	-	0.1
STOMACH	(151)	-	0.6	-	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	3.4	2	3.2
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	1	0.1	-	0.2
PANCREAS	(157)	-	0.6	-	0.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	1	0.2
LARYNX	(161)	-	0.6	-	0.1
BRONCHUS AND LUNG	(162.2-162.9)	5	5.9	3	2.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.2	-	0.1
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	1	0.1	1	0.1
MELANOMA OF THE SKIN	(8720-8790)*	1	0.7	-	0.5
BREAST	(174,175)	1	0.1	4	8.2
CERVIX UTERI	(180)	-	-	-	0.7
CORPUS UTERI	(179,182)	-	-	3	1.3
OVARY	(183.0)	-	-	1	1.0
PROSTATE	(185)	4	8.6	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	1	1.8	1	0.6
KIDNEY	(189.0, 189.1)	-	0.7	-	0.5
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.3
LYMPHOMA	(9590-9714,9750)*	1	1.0	-	0.9
LEUKEMIA	(9800-9940,9951)*	-	0.6	1	0.4
BRAIN AND CNS	(191,192)	1	0.4	-	0.3
ALL CANCERS	(140-199)	25	29.1	21	24.3

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
TRANSYLVANIA COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	4	2.2	-	1.2
ESOPHAGUS	(150)	2	1.2	-	0.4
STOMACH	(151)	1	1.5	3	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	9.3	7	8.5
LIVER	(155)	-	0.5	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	3	1.6	-	1.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.5
LARYNX	(161)	-	1.6	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	10	16.1	5	6.8
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.4	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.3	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	2	1.8	3	1.3
BREAST	(174,175)	1	0.2	23	21.2
CERVIX UTERI	(180)	-	-	2	1.7
CORPUS UTERI	(179,182)	-	-	5	3.5
OVARY	(183.0)	-	-	4	2.5
PROSTATE	(185)	20	24.0	-	-
TESTES	(186)	-	0.4	-	-
BLADDER	(188)	7	4.9	1	1.5
KIDNEY	(189.0, 189.1)	1	2.0	2	1.2
ENDOCRINE	(164.0,193,194)	-	0.4	-	0.7
LYMPHOMA	(9590-9714,9750)*	4	2.5	1	2.3
LEUKEMIA	(9800-9940,9951)*	1	1.5	-	1.1
BRAIN AND CNS	(191,192)	1	1.0	-	0.9
ALL CANCERS	(140-199)	68	78.4	65	63.4

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
TYRRELL COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	0.3	-	0.2
ESOPHAGUS	(150)	-	0.2	-	0.1
STOMACH	(151)	-	0.2	-	0.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	1.3	-	1.2
LIVER	(155)	-	0.1	-	-
GALLBLADDER, BILIARY	(156)	-	-	-	0.1
PANCREAS	(157)	1	0.2	-	0.2
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.1	-	0.1
LARYNX	(161)	-	0.2	-	-
BRONCHUS AND LUNG	(162.2-162.9)	-	2.2	-	0.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.1	-	-
BONE	(170)	-	-	-	-
SOFT TISSUE	(164.1,171)	-	-	-	-
MELANOMA OF THE SKIN	(8720-8790)*	-	0.2	-	0.2
BREAST	(174,175)	-	-	6	2.9
CERVIX UTERI	(180)	-	-	-	0.2
CORPUS UTERI	(179,182)	-	-	-	0.5
OVARY	(183.0)	-	-	1	0.3
PROSTATE	(185)	2	3.3	-	-
TESTES	(186)	-	0.1	-	-
BLADDER	(188)	-	0.7	-	0.2
KIDNEY	(189.0, 189.1)	-	0.3	-	0.2
ENDOCRINE	(164.0,193,194)	-	0.1	-	0.1
LYMPHOMA	(9590-9714,9750)*	1	0.3	-	0.3
LEUKEMIA	(9800-9940,9951)*	-	0.2	-	0.2
BRAIN AND CNS	(191,192)	-	0.1	-	0.1
ALL CANCERS	(140-199)	6	10.8	7	8.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
UNION COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	4	5.1	1	2.7
ESOPHAGUS	(150)	3	2.5	-	0.8
STOMACH	(151)	2	3.0	2	1.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	25	17.6	21	17.4
LIVER	(155)	-	1.0	-	0.5
GALLBLADDER, BILIARY	(156)	-	0.6	1	0.8
PANCREAS	(157)	1	3.0	4	2.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.9	2	1.1
LARYNX	(161)	2	3.4	2	0.8
BRONCHUS AND LUNG	(162.2-162.9)	25	31.3	7	14.4
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	1.0	-	0.4
BONE	(170)	-	0.2	-	0.3
SOFT TISSUE	(164.1,171)	-	0.8	-	0.7
MELANOMA OF THE SKIN	(8720-8790)*	7	4.4	6	3.5
BREAST	(174,175)	-	0.3	55	50.2
CERVIX UTERI	(180)	-	-	4	4.7
CORPUS UTERI	(179,182)	-	-	5	7.5
OVARY	(183.0)	-	-	4	5.8
PROSTATE	(185)	39	40.3	-	-
TESTES	(186)	-	1.6	-	-
BLADDER	(188)	8	9.0	1	3.0
KIDNEY	(189.0, 189.1)	5	4.3	2	2.7
ENDOCRINE	(164.0,193,194)	-	1.0	1	2.2
LYMPHOMA	(9590-9714,9750)*	3	5.9	3	5.2
LEUKEMIA	(9800-9940,9951)*	4	3.4	2	2.7
BRAIN AND CNS	(191,192)	1	2.5	2	2.2
ALL CANCERS	(140-199)	137	151.5	132	143.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
VANCE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	2.4	2	1.5
ESOPHAGUS	(150)	1	1.2	1	0.4
STOMACH	(151)	1	1.5	1	1.1
COLON AND RECTUM	(153,154.0,154.1,159.0)	6	9.1	3	10.3
LIVER	(155)	1	0.5	-	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.5
PANCREAS	(157)	-	1.5	3	1.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.4	-	0.6
LARYNX	(161)	2	1.7	-	0.4
BRONCHUS AND LUNG	(162.2-162.9)	11	15.9	8	8.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.5	1	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.4	-	0.4
MELANOMA OF THE SKIN	(8720-8790)*	1	2.0	-	1.8
BREAST	(174,175)	-	0.2	17	26.6
CERVIX UTERI	(180)	-	-	1	2.3
CORPUS UTERI	(179,182)	-	-	7	4.2
OVARY	(183.0)	-	-	4	3.1
PROSTATE	(185)	18	22.2	-	-
TESTES	(186)	2	0.7	-	-
BLADDER	(188)	2	4.7	1	1.8
KIDNEY	(189.0, 189.1)	1	2.1	1	1.5
ENDOCRINE	(164.0,193,194)	-	0.5	-	1.1
LYMPHOMA	(9590-9714,9750)*	2	2.8	1	2.9
LEUKEMIA	(9800-9940,9951)*	2	1.7	-	1.4
BRAIN AND CNS	(191,192)	3	1.2	4	1.2
ALL CANCERS	(140-199)	59	77.8	58	78.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WAKE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	29	22.4	18	12.0
ESOPHAGUS	(150)	18	10.8	3	3.5
STOMACH	(151)	19	12.7	9	8.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	75	73.4	88	77.8
LIVER	(155)	4	4.2	-	2.3
GALLBLADDER, BILIARY	(156)	3	2.3	2	3.7
PANCREAS	(157)	15	12.5	6	12.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	2	4.0	9	4.7
LARYNX	(161)	13	14.7	2	3.5
BRONCHUS AND LUNG	(162.2-162.9)	124	130.4	62	63.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	7	4.2	2	1.6
BONE	(170)	2	1.2	-	1.4
SOFT TISSUE	(164.1,171)	4	4.0	2	3.5
MELANOMA OF THE SKIN	(8720-8790)*	29	20.7	27	17.1
BREAST	(174,175)	3	1.4	292	232.6
CERVIX UTERI	(180)	-	-	18	24.4
CORPUS UTERI	(179,182)	-	-	36	33.6
OVARY	(183.0)	-	-	29	27.1
PROSTATE	(185)	274	161.1	-	-
TESTES	(186)	9	9.3	-	-
BLADDER	(188)	38	37.5	11	13.5
KIDNEY	(189.0, 189.1)	21	18.4	14	12.1
ENDOCRINE	(164.0,193,194)	4	4.9	16	11.5
LYMPHOMA	(9590-9714,9750)*	33	27.7	42	24.9
LEUKEMIA	(9800-9940,9951)*	11	15.2	14	12.6
BRAIN AND CNS	(191,192)	17	11.5	14	10.7
ALL CANCERS	(140-199)	809	641.0	786	662.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WARREN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	1.4	1	0.8
ESOPHAGUS	(150)	1	0.7	-	0.2
STOMACH	(151)	-	1.0	-	0.6
COLON AND RECTUM	(153,154.0,154.1,159.0)	1	5.8	3	5.8
LIVER	(155)	-	0.3	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.3
PANCREAS	(157)	-	1.0	2	1.0
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.3	-	0.3
LARYNX	(161)	2	1.0	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	7	10.0	4	4.5
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.3	-	0.1
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	-	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.1	-	0.9
BREAST	(174,175)	-	0.1	11	14.0
CERVIX UTERI	(180)	-	-	1	1.1
CORPUS UTERI	(179,182)	-	-	1	2.3
OVARY	(183.0)	-	-	-	1.6
PROSTATE	(185)	9	14.9	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	2	3.0	-	1.0
KIDNEY	(189.0, 189.1)	1	1.2	2	0.8
ENDOCRINE	(164.0,193,194)	-	0.2	-	0.5
LYMPHOMA	(9590-9714,9750)*	-	1.6	-	1.5
LEUKEMIA	(9800-9940,9951)*	2	1.0	-	0.8
BRAIN AND CNS	(191,192)	-	0.6	-	0.6
ALL CANCERS	(140-199)	29	48.9	27	42.2

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WASHINGTON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	1	1.0	-	0.6
ESOPHAGUS	(150)	2	0.5	-	0.2
STOMACH	(151)	-	0.6	-	0.4
COLON AND RECTUM	(153,154.0,154.1,159.0)	2	3.7	4	3.8
LIVER	(155)	-	0.2	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.1	1	0.2
PANCREAS	(157)	1	0.6	-	0.6
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.2
LARYNX	(161)	-	0.7	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	6	6.5	3	3.0
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	1	0.2	-	0.1
BONE	(170)	-	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.1	-	0.1
MELANOMA OF THE SKIN	(8720-8790)*	-	0.8	1	0.6
BREAST	(174,175)	1	0.1	7	9.7
CERVIX UTERI	(180)	-	-	2	0.8
CORPUS UTERI	(179,182)	-	-	6	1.5
OVARY	(183.0)	-	-	2	1.1
PROSTATE	(185)	6	9.1	-	-
TESTES	(186)	-	0.2	-	-
BLADDER	(188)	2	1.9	-	0.7
KIDNEY	(189.0, 189.1)	-	0.8	1	0.5
ENDOCRINE	(164.0,193,194)	1	0.2	1	0.4
LYMPHOMA	(9590-9714,9750)*	-	1.1	1	1.0
LEUKEMIA	(9800-9940,9951)*	2	0.7	1	0.5
BRAIN AND CNS	(191,192)	1	0.4	-	0.4
ALL CANCERS	(140-199)	28	31.4	32	28.7

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WATAUGA COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	2.2	1	1.2
ESOPHAGUS	(150)	1	1.1	-	0.3
STOMACH	(151)	1	1.4	-	0.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	5	8.2	8	7.7
LIVER	(155)	-	0.4	-	0.2
GALLBLADDER, BILIARY	(156)	-	0.3	-	0.4
PANCREAS	(157)	1	1.4	1	1.3
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	2	0.4
LARYNX	(161)	2	1.5	-	0.3
BRONCHUS AND LUNG	(162.2-162.9)	5	14.2	4	6.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	-	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.4	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	1	1.9	3	1.4
BREAST	(174,175)	-	0.2	16	20.6
CERVIX UTERI	(180)	-	-	-	1.9
CORPUS UTERI	(179,182)	-	-	5	3.2
OVARY	(183.0)	-	-	5	2.4
PROSTATE	(185)	21	19.9	-	-
TESTES	(186)	2	0.7	-	-
BLADDER	(188)	3	4.2	4	1.4
KIDNEY	(189.0, 189.1)	5	1.8	-	1.1
ENDOCRINE	(164.0,193,194)	2	0.4	1	0.9
LYMPHOMA	(9590-9714,9750)*	2	2.7	4	2.4
LEUKEMIA	(9800-9940,9951)*	-	1.5	1	1.2
BRAIN AND CNS	(191,192)	1	1.0	-	0.9
ALL CANCERS	(140-199)	56	70.1	58	60.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WAYNE COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	6	6.2	6	3.5
ESOPHAGUS	(150)	1	3.1	-	1.0
STOMACH	(151)	3	3.7	1	2.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	28	21.7	27	23.2
LIVER	(155)	1	1.2	-	0.7
GALLBLADDER, BILIARY	(156)	1	0.7	-	1.1
PANCREAS	(157)	8	3.7	4	3.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	1.1	4	1.4
LARYNX	(161)	4	4.2	-	1.0
BRONCHUS AND LUNG	(162.2-162.9)	50	38.8	11	19.2
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	2	1.2	1	0.5
BONE	(170)	-	0.3	2	0.4
SOFT TISSUE	(164.1,171)	-	1.0	-	0.9
MELANOMA OF THE SKIN	(8720-8790)*	7	5.5	6	4.3
BREAST	(174,175)	-	0.4	64	64.3
CERVIX UTERI	(180)	-	-	11	5.9
CORPUS UTERI	(179,182)	-	-	9	9.9
OVARY	(183.0)	-	-	12	7.5
PROSTATE	(185)	48	50.3	-	-
TESTES	(186)	4	2.1	-	-
BLADDER	(188)	11	11.2	4	4.0
KIDNEY	(189.0, 189.1)	5	5.2	7	3.5
ENDOCRINE	(164.0,193,194)	-	1.3	3	2.7
LYMPHOMA	(9590-9714,9750)*	7	7.4	10	6.8
LEUKEMIA	(9800-9940,9951)*	7	4.2	5	3.4
BRAIN AND CNS	(191,192)	2	3.1	1	2.9
ALL CANCERS	(140-199)	202	188.0	199	186.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WILKES COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	2	4.3	4	2.4
ESOPHAGUS	(150)	2	2.2	-	0.7
STOMACH	(151)	4	2.7	1	1.8
COLON AND RECTUM	(153,154.0,154.1,159.0)	18	16.0	15	15.9
LIVER	(155)	1	0.9	1	0.5
GALLBLADDER, BILIARY	(156)	1	0.5	1	0.8
PANCREAS	(157)	4	2.7	5	2.7
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	1	0.8	-	0.9
LARYNX	(161)	5	3.0	-	0.7
BRONCHUS AND LUNG	(162.2-162.9)	24	28.1	13	12.7
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.8	-	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	2	0.7	-	0.6
MELANOMA OF THE SKIN	(8720-8790)*	6	3.6	2	2.8
BREAST	(174,175)	-	0.3	27	42.3
CERVIX UTERI	(180)	-	-	3	3.7
CORPUS UTERI	(179,182)	-	-	7	6.6
OVARY	(183.0)	-	-	3	4.9
PROSTATE	(185)	34	38.6	-	-
TESTES	(186)	-	1.1	-	-
BLADDER	(188)	8	8.3	2	2.8
KIDNEY	(189.0, 189.1)	4	3.7	2	2.3
ENDOCRINE	(164.0,193,194)	2	0.8	5	1.6
LYMPHOMA	(9590-9714,9750)*	5	4.8	-	4.5
LEUKEMIA	(9800-9940,9951)*	5	2.9	3	2.2
BRAIN AND CNS	(191,192)	1	2.0	2	1.8
ALL CANCERS	(140-199)	138	136.5	107	123.8

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
WILSON COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	4.1	1	2.6
ESOPHAGUS	(150)	2	2.1	-	0.8
STOMACH	(151)	7	2.6	1	1.9
COLON AND RECTUM	(153,154.0,154.1,159.0)	21	15.3	17	17.4
LIVER	(155)	2	0.8	1	0.5
GALLBLADDER, BILIARY	(156)	-	0.5	1	0.8
PANCREAS	(157)	3	2.6	5	2.9
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	3	0.7	4	1.0
LARYNX	(161)	1	2.9	2	0.7
BRONCHUS AND LUNG	(162.2-162.9)	31	27.0	13	14.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.8	1	0.3
BONE	(170)	-	0.2	-	0.2
SOFT TISSUE	(164.1,171)	-	0.7	1	0.6
MELANOMA OF THE SKIN	(8720-8790)*	3	3.5	1	3.1
BREAST	(174,175)	-	0.3	38	46.2
CERVIX UTERI	(180)	-	-	3	4.1
CORPUS UTERI	(179,182)	-	-	8	7.2
OVARY	(183.0)	-	-	11	5.4
PROSTATE	(185)	25	36.6	-	-
TESTES	(186)	-	1.1	-	-
BLADDER	(188)	3	7.9	-	3.0
KIDNEY	(189.0, 189.1)	3	3.5	6	2.6
ENDOCRINE	(164.0,193,194)	-	0.8	1	1.8
LYMPHOMA	(9590-9714,9750)*	4	4.7	3	4.9
LEUKEMIA	(9800-9940,9951)*	2	2.8	1	2.5
BRAIN AND CNS	(191,192)	3	2.0	3	2.0
ALL CANCERS	(140-199)	123	130.7	128	135.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
YADKIN COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	3	2.3	-	1.3
ESOPHAGUS	(150)	-	1.2	-	0.4
STOMACH	(151)	-	1.5	-	1.0
COLON AND RECTUM	(153,154.0,154.1,159.0)	10	8.9	8	9.1
LIVER	(155)	-	0.5	-	0.3
GALLBLADDER, BILIARY	(156)	-	0.3	1	0.4
PANCREAS	(157)	2	1.5	1	1.5
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.4	-	0.5
LARYNX	(161)	1	1.6	-	0.4
BRONCHUS AND LUNG	(162.2-162.9)	19	15.5	4	7.1
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.4	1	0.2
BONE	(170)	-	0.1	-	0.1
SOFT TISSUE	(164.1,171)	-	0.4	-	0.3
MELANOMA OF THE SKIN	(8720-8790)*	4	2.0	1	1.5
BREAST	(174,175)	-	0.2	24	23.1
CERVIX UTERI	(180)	-	-	1	2.0
CORPUS UTERI	(179,182)	-	-	2	3.6
OVARY	(183.0)	-	-	-	2.7
PROSTATE	(185)	25	21.7	-	-
TESTES	(186)	-	0.6	-	-
BLADDER	(188)	7	4.6	1	1.6
KIDNEY	(189.0, 189.1)	1	2.0	1	1.3
ENDOCRINE	(164.0,193,194)	-	0.4	2	0.9
LYMPHOMA	(9590-9714,9750)*	5	2.6	3	2.5
LEUKEMIA	(9800-9940,9951)*	3	1.5	-	1.2
BRAIN AND CNS	(191,192)	2	1.0	1	1.0
ALL CANCERS	(140-199)	87	75.3	55	68.5

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

OBSERVED AND EXPECTED FREQUENCIES OF SELECTED CANCER SITES BY COUNTY OF RESIDENCE
YANCEY COUNTY 1991

CANCER SITE	ICD-O	MALES		FEMALES	
		OBSERVED	EXPECTED	OBSERVED	EXPECTED
ORAL CAVITY	(140-149)	-	1.3	-	0.7
ESOPHAGUS	(150)	-	0.7	-	0.2
STOMACH	(151)	2	0.9	1	0.5
COLON AND RECTUM	(153,154.0,154.1,159.0)	2	5.1	6	5.0
LIVER	(155)	-	0.3	-	0.1
GALLBLADDER, BILIARY	(156)	-	0.2	-	0.2
PANCREAS	(157)	-	0.9	-	0.8
OTHER DIGESTIVE ORGANS	(152,154.2-154.9,158,159.1-159.9)	-	0.2	-	0.3
LARYNX	(161)	2	0.9	-	0.2
BRONCHUS AND LUNG	(162.2-162.9)	8	8.7	3	3.9
OTHER RESPIRATORY	(160,162.0,163,164.2-165)	-	0.2	-	0.1
BONE	(170)	1	-	-	0.1
SOFT TISSUE	(164.1,171)	-	0.2	1	0.2
MELANOMA OF THE SKIN	(8720-8790)*	1	1.0	1	0.8
BREAST	(174,175)	-	0.1	17	12.3
CERVIX UTERI	(180)	-	-	-	1.0
CORPUS UTERI	(179,182)	-	-	5	2.0
OVARY	(183.0)	-	-	4	1.4
PROSTATE	(185)	8	13.0	-	-
TESTES	(186)	-	0.3	-	-
BLADDER	(188)	4	2.7	-	0.9
KIDNEY	(189.0, 189.1)	2	1.1	-	0.7
ENDOCRINE	(164.0,193,194)	1	0.2	-	0.4
LYMPHOMA	(9590-9714,9750)*	1	1.4	2	1.3
LEUKEMIA	(9800-9940,9951)*	-	0.9	1	0.6
BRAIN AND CNS	(191,192)	4	0.6	-	0.5
ALL CANCERS	(140-199)	37	43.2	49	36.6

* MORPHOLOGY (SEE TECHNICAL NOTES, SECTION II.A.)

B. Age-Specific Cancer Incidence by County of Residence

AGE-SPECIFIC CANCER INCIDENCE FOR 1991

COUNTY	0-19	20-44	45-64	65+
NORTH CAROLINA	245	2501	8733	15522
ALAMANCE	3	52	200	359
ALEXANDER	-	9	37	55
ALLEGHANY	1	2	15	22
ANSON	-	4	20	65
ASHE	-	4	32	74
AVERY	-	2	13	50
BEAUFORT	3	9	47	114
BERTIE	-	6	23	39
BLADEN	1	13	34	61
BRUNSWICK	4	13	89	105
BUNCOMBE	7	73	265	604
BURKE	2	37	101	179
CABARRUS	1	50	139	244
CALDWELL	2	20	83	115
CAMDEN	-	-	3	10
CARTERET	2	14	69	132
CASWELL	1	9	28	43
CATAWBA	4	46	154	280
CHATHAM	1	19	44	107
CHEROKEE	1	6	41	71
CHOWAN	-	3	11	36
CLAY	-	1	8	25
CLEVELAND	2	27	110	192
COLUMBUS	3	19	54	83
CRAVEN	4	24	107	197
CUMBERLAND	7	92	256	324
CURRITUCK	-	3	4	16
DARE	-	9	7	22
DAVIDSON	4	47	172	221
DAVIE	4	22	40	79
DUPLIN	1	22	62	96
DURHAM	4	93	215	410
EDGECOMBE	3	19	61	144
FORSYTH	11	129	447	767
FRANKLIN	1	13	51	76
GASTON	8	67	291	492
GATES	-	1	4	11
GRAHAM	1	-	13	26
GRANVILLE	1	19	46	64
GREENE	1	6	8	38
GUILFORD	9	133	525	921
HALIFAX	3	23	62	136
HARNETT	6	22	98	167
HAYWOOD	-	13	68	145
HENDERSON	6	25	129	335
HERTFORD	-	7	24	48
HOKE	1	8	19	44
HYDE	-	1	5	12
IREDELL	3	35	149	271
JACKSON	-	7	28	78
JOHNSTON	2	20	106	192
JONES	1	4	14	23
LEE	1	15	62	122
LENOIR	5	19	80	153

AGE-SPECIFIC CANCER INCIDENCE FOR 1991

COUNTY	0-19	20-44	45-64	65+
MCDOWELL	-	12	37	98
MACON	-	8	32	112
MADISON	-	4	27	42
MARTIN	-	6	29	58
MECKLENBURG	29	242	690	1065
MITCHELL	1	1	17	29
MONTGOMERY	-	11	28	66
MOORE	3	20	110	275
NASH	1	27	107	185
NEW HANOVER	6	42	172	341
NORTHAMPTON	1	8	26	71
ONSLOW	3	40	119	132
ORANGE	1	35	110	174
PAMLICO	2	2	13	46
PASQUOTANK	1	3	22	66
PENDER	1	8	36	69
PERQUIMANS	-	3	9	14
PERSON	-	13	39	79
PITT	2	31	98	196
POLK	-	4	17	43
RANDOLPH	5	34	173	257
RICHMOND	2	15	52	116
ROBESON	8	32	100	172
ROCKINGHAM	2	40	114	178
ROWAN	4	35	133	223
RUTHERFORD	3	13	64	184
SAMPSON	2	16	55	101
SCOTLAND	-	13	23	37
STANLY	1	18	70	110
STOKES	2	15	54	93
SURRY	2	22	104	163
SWAIN	2	5	11	28
TRANSYLVANIA	-	7	42	84
TYRRELL	-	3	2	8
UNION	1	20	93	155
VANCE	-	8	51	58
WAKE	20	216	537	822
WARREN	-	4	18	34
WASHINGTON	3	4	25	28
WATAUGA	1	7	30	76
WAYNE	3	42	162	194
WILKES	4	17	85	139
WILSON	1	18	88	144
YADKIN	-	13	40	89
YANCEY	-	10	22	54

C. Race/Gender-Specific Incidence by County of Residence

RACE/GENDER-SPECIFIC CANCER INCIDENCE FOR 1991

COUNTY	WHITE-M	WHITE-F	BLACK-M	BLACK-F	INDIAN-M	INDIAN-F	OTHER-M	OTHER-F
NORTH CAROLINA	11454	10727	2390	2208	73	63	27	59
ALAMANCE	234	275	54	51	-	-	-	-
ALEXANDER	57	38	2	4	-	-	-	-
ALLEGHANY	20	19	-	1	-	-	-	-
ANSON	36	22	17	14	-	-	-	-
ASHE	65	45	-	-	-	-	-	-
AVERY	29	36	-	-	-	-	-	-
BEAUFORT	64	64	31	14	-	-	-	-
BERTIE	16	13	21	18	-	-	-	-
BLADEN	30	44	17	18	-	-	-	-
BRUNSWICK	76	104	15	15	1	-	-	-
BUNCOMBE	433	463	31	19	2	-	-	1
BURKE	157	150	6	5	1	-	-	-
CABARRUS	212	179	16	24	1	-	2	-
CALDWELL	117	86	8	8	1	-	-	-
CAMDEN	6	5	2	-	-	-	-	-
CARTERET	114	93	5	4	-	-	-	1
CASWELL	30	23	15	13	-	-	-	-
CATAWBA	250	212	11	11	-	-	-	-
CHATHAM	65	74	18	14	-	-	-	-
CHEROKEE	63	53	2	-	1	-	-	-
CHOWAN	20	15	6	8	1	-	-	-
CLAY	14	20	-	-	-	-	-	-
CLEVELAND	150	130	23	27	1	-	-	-
COLUMBUS	67	49	20	19	3	1	-	-
CRAVEN	144	117	37	33	-	1	-	-
CUMBERLAND	242	241	82	99	4	9	1	1
CURRITUCK	10	8	3	2	-	-	-	-
DARE	17	20	-	1	-	-	-	-
DAVIDSON	203	210	14	16	-	-	-	1
DAVIE	79	55	9	2	-	-	-	-
DUPLIN	52	75	30	23	1	-	-	-
DURHAM	237	262	111	105	-	-	-	7
EDGECOMBE	77	59	38	53	-	-	-	-
FORSYTH	557	534	115	144	-	2	-	2
FRANKLIN	50	50	13	27	1	-	-	-
GASTON	403	366	49	36	1	-	2	1
GATES	9	1	5	1	-	-	-	-
GRAHAM	22	16	1	-	-	1	-	-
GRANVILLE	45	33	31	21	-	-	-	-
GREENE	15	13	11	14	-	-	-	-
GUILFORD	636	628	174	143	1	1	3	2
HALIFAX	64	65	51	42	-	1	1	-
HARNETT	119	122	32	19	-	-	-	1
HAYWOOD	119	106	-	1	-	-	-	-
HENDERSON	262	220	6	7	-	-	-	-
HERTFORD	14	21	22	21	-	1	-	-
HOKE	30	14	14	8	1	4	-	1
HYDE	5	10	2	1	-	-	-	-
IREDELL	221	180	28	28	-	-	1	-
JACKSON	54	55	1	-	1	2	-	-
JOHNSTON	135	133	30	21	-	-	-	1
JONES	12	14	11	5	-	-	-	-
LEE	87	68	24	19	1	-	-	1
LENOIR	87	80	37	45	-	1	-	1

RACE/GENDER-SPECIFIC CANCER INCIDENCE FOR 1991

COUNTY	WHITE-M	WHITE-F	BLACK-M	BLACK-F	INDIAN-M	INDIAN-F	OTHER-M	OTHER-F
MCDOWELL	71	72	1	3	-	-	-	-
MACON	81	71	-	-	-	-	-	-
MADISON	47	26	-	-	-	-	-	-
MARTIN	25	30	19	19	-	-	-	-
MECKLENBURG	827	793	199	192	4	3	2	6
MITCHELL	24	24	-	-	-	-	-	-
MONTGOMERY	42	42	13	8	-	-	-	-
MOORE	211	152	22	23	-	-	-	-
NASH	148	101	41	29	1	-	-	-
NEW HANOVER	232	232	51	44	1	-	-	1
NORTHAMPTON	24	24	27	31	-	-	-	-
ONSLOW	128	129	15	17	-	1	-	4
ORANGE	127	138	22	30	-	-	2	1
PAMLICO	34	18	6	5	-	-	-	-
PASQUOTANK	30	30	14	18	-	-	-	-
PENDER	43	36	19	16	-	-	-	-
PERQUIMANS	6	12	6	2	-	-	-	-
PERSON	48	46	23	14	-	-	-	-
PITT	113	119	58	37	-	-	-	-
POLK	29	29	3	3	-	-	-	-
RANDOLPH	248	196	14	10	-	-	-	1
RICHMOND	75	73	24	11	1	-	1	-
ROBESON	98	73	34	32	40	26	3	6
ROCKINGHAM	125	149	29	31	-	-	-	-
ROWAN	178	180	13	23	-	-	-	1
RUTHERFORD	132	99	24	9	-	-	-	-
SAMPSON	54	65	32	19	-	2	1	1
SCOTLAND	26	28	11	7	-	1	-	-
STANLY	94	85	11	9	-	-	-	-
STOKES	86	68	6	4	-	-	-	-
SURRY	147	129	8	6	-	-	-	1
SWAIN	23	17	-	-	2	4	-	-
TRANSYLVANIA	66	61	2	4	-	-	-	-
TYRRELL	2	3	4	4	-	-	-	-
UNION	124	115	13	17	-	-	-	-
VANCE	33	36	26	22	-	-	-	-
WAKE	640	632	161	142	-	1	8	11
WARREN	11	12	17	15	1	-	-	-
WASHINGTON	18	14	10	17	-	-	-	1
WATAUGA	55	57	1	1	-	-	-	-
WAYNE	140	136	62	61	-	-	-	2
WILKES	133	102	5	4	-	-	-	1
WILSON	87	91	36	36	-	-	-	1
YADKIN	84	54	3	1	-	-	-	-
YANCEY	37	49	-	-	-	-	-	-

D. Cancer Incidence and Mortality by County of Residence

CANCER INCIDENCE AND MORTALITY FOR 1991

COUNTY	CASES	DEATHS
NORTH CAROLINA	27001	13355
ALAMANCE	614	214
ALEXANDER	101	41
ALLEGHANY	40	21
ANSON	89	46
ASHE	110	56
AVERY	65	35
BEAUFORT	173	104
BERTIE	68	58
BLADEN	109	55
BRUNSWICK	211	116
BUNCOMBE	949	454
BURKE	319	157
CABARRUS	434	213
CALDWELL	220	148
CAMDEN	13	16
CARTERET	217	140
CASWELL	81	50
CATAWBA	484	245
CHATHAM	171	101
CHEROKEE	119	44
CHOWAN	50	37
CLAY	34	21
CLEVELAND	331	162
COLUMBUS	159	127
CRAVEN	332	173
CUMBERLAND	679	339
CURRITUCK	23	43
DARE	38	45
DAVIDSON	444	243
DAVIE	145	45
DUPLIN	181	99
DURHAM	722	366
EDGECOMBE	227	138
FORSYTH	1354	544
FRANKLIN	141	76
GASTON	858	379
GATES	16	21
GRAHAM	40	14
GRANVILLE	130	73
GREENE	53	31
GUILFORD	1588	701
HALIFAX	224	143
HARNETT	293	133
HAYWOOD	226	136
HENDERSON	495	196
HERTFORD	79	66
HOKE	72	50
HYDE	18	16
IREDELL	458	184
JACKSON	113	56
JOHNSTON	320	168
JONES	42	12
LEE	200	85

CANCER INCIDENCE AND MORTALITY FOR 1991

COUNTY	CASES	DEATHS
MCDOWELL	147	73
MACON	152	66
MADISON	73	32
MARTIN	93	68
MECKLENBURG	2026	885
MITCHELL	48	39
MONTGOMERY	105	60
MOORE	408	160
NASH	320	167
NEW HANOVER	561	256
NORTHAMPTON	106	50
ONSLOW	294	141
ORANGE	320	115
PAMLICO	63	44
PASQUOTANK	92	78
PENDER	114	62
PERQUIMANS	26	34
PERSON	131	65
PITT	327	213
POLK	64	52
RANDOLPH	469	202
RICHMOND	185	95
ROBESON	312	189
ROCKINGHAM	334	203
ROWAN	395	271
RUTHERFORD	264	129
SAMPSON	174	115
SCOTLAND	73	62
STANLY	199	96
STOKES	164	85
SURRY	291	141
SWAIN	46	28
TRANSYLVANIA	133	70
TYRRELL	13	4
UNION	269	135
VANCE	117	82
WAKE	1595	607
WARREN	56	43
WASHINGTON	60	43
WATAUGA	114	49
WAYNE	401	200
WILKES	245	98
WILSON	251	159
YADKIN	142	76
YANCEY	86	28

APPENDIX

North Carolina Central Cancer Registry Incidence Report

NORTH CAROLINA CENTRAL CANCER REGISTRY
INCIDENCE REPORT

(Do not write in shaded boxes.)

N. C. Department of Environment, Health, and Natural Resources
Division of Statistics and Information Ser

NCCCR #

1. Name _____
(last) (first) (middle/maiden name)

2. Usual Residence: _____
(street and number)

_____
(city) (state) (zip code)

3. County of Residence: _____

4. Date of Birth: MM DD YEAR

5. Race of Patient:
- ☐ 1 = White
- ☐ 2 = Black
- ☐ 3 = Am. Ind., Cherokee
- ☐ 4 = Am. Ind., Lumbee
- ☐ 5 = Am. Ind., NOS
- ☐ 6 = Oriental
- ☐ 7 = Asian
- ☐ 8 = Other
- ☐ 9 = Unk

5A. Hispanic Origin
- ☐ 1 = Yes
- ☐ 2 = No
- ☐ 9 = Unk

6. Sex of Patient:
- ☐ 1 = Male
- ☐ 2 = Female
- ☐ 9 = Unk

7. Social Security Number: ☐☐☐ ☐☐ ☐☐☐☐

8. State of Birth: _____

9. Medical Record Number:

10. Tumor Registry Number:

11. Was first diagnosis of this cancer made elsewher
☐ 1 = Yes ☐ 2 = No ☐ 9 = Unknown

12. Sequence of this Neoplasm at Initial Diagnosis:
- ☐ 0 = One malignancy only
- ☐ 1 = First of more than one
- ☐ 2 = Second of more than one
- ☐ 3 = Third of more than one
- ☐ 4 = Fourth of more than one

13. Primary Site: _____

Code: ☐☐☐☐ Please attach pathology repo

14. Laterality at Initial Diagnosis:
- ☐ 0 = Unpaired
- ☐ 1 = Right
- ☐ 2 = Left
- ☐ 3 = Both simultaneously
- ☐ 4 = Paired but side unknown

15. Histology: _____

Code: ☐☐☐☐☐ Please attach pathology repo

16. Grade at Initial Diagnosis:
- ☐ 1 = Well differentiated
- ☐ 2 = Mod/well differentiated
- ☐ 3 = Poorly differentiated
- ☐ 4 = Undifferentiated/Anaplastic
- ☐ 5 = T-cell
- ☐ 6 = B-cell, Pre-B-Cell, B-precursor
- ☐ 7 = Null cell, Non-T-non B
- ☐ 8 = Benign
- ☐ 9 = Grade not stated

17. Confirmation at Initial Diagnosis:
- ☐ 1 = Positive Histology
- ☐ 2 = Cytology
- ☐ 3 = Biochemistry/Immunology
- ☐ 4 = Direct Visualization
- ☐ 5 = Radiology
- ☐ 6 = Clinical Diagnosis only
- ☐ 7 = Autopsy
- ☐ 8 = Other *(specify)* _____
- ☐ 9 = Unknown

18. Date of Initial Diagnosis: MM DD YEAR

19. Stage at Initial Diagnosis:
- ☐ 0 = In situ
- ☐ 1 = Localized
- ☐ 2 = Regional
- ☐ 3 = Distant metastasis/sys. diseas
- ☐ 8 = Benign (Reportable Site)
- ☐ 9 = Unstaged/Unknown

20. Date First Seen at this Facility: MM DD YEAR

21. Stage First Seen at this Facility:
- ☐ 0 = In situ
- ☐ 1 = Localized
- ☐ 2 = Regional
- ☐ 3 = Distant metastasis/sys. diseas
- ☐ 8 = Benign (Reportable Site)
- ☐ 9 = Unstaged/Unknown

22. Date of Last Contact: MM DD YEAR

23. Status:
☐ 0 = Alive ☐ 1 = Dead ☐ 9 = Unknown

24. Physician's Name: _____ ☐☐☐☐
(last) (first) (middle initial)

Reporting Hospital: _____ ☐☐☐☐☐☐

Abstracted By: _____ Date: _____

Purpose: To comply with General Statute 130A-209, which requires the Division of Statistics and Information Services of the Department of Environment, Health, and Natural Resources to collect incidence reports. The reports will be for statistical purposes only and the confidentiality of the patient relationship shall be protected.

Preparation:

1. Complete according to North Carolina Central Cancer Registry Data Acquisition Manual.
2. In Item 24 (Abstracted By) please use initials.

Distribution: At the end of each report period route:

original: North Carolina Central Cancer Registry
Cancer Surveillance Section
Division of Statistics and Information Services
P.O. Box 27687
Raleigh, NC 27611-7687

duplicates: Retain for facility files.

Retention: Original form will be kept at the Central Cancer Registry for three (3) years, then destroyed. Keep duplicate copies in facility files for as long as they are of administrative value.

Additional forms may be ordered from: North Carolina Central Cancer Registry
Cancer Surveillance Section
Division of Statistics and Information Services
P. O. Box 27687
Raleigh, NC 27611-7687

3 3091 00747 1725

Department of Environment, Health, and Natural Resources
State Center for Health and Environmental Statistics
P. O. Box 29538
Raleigh, N.C. 27626-0538
919/733-4728

BULK RATE
U.S. Postage
PAID
Raleigh, N.C. 27626-0538
Permit No. 1862